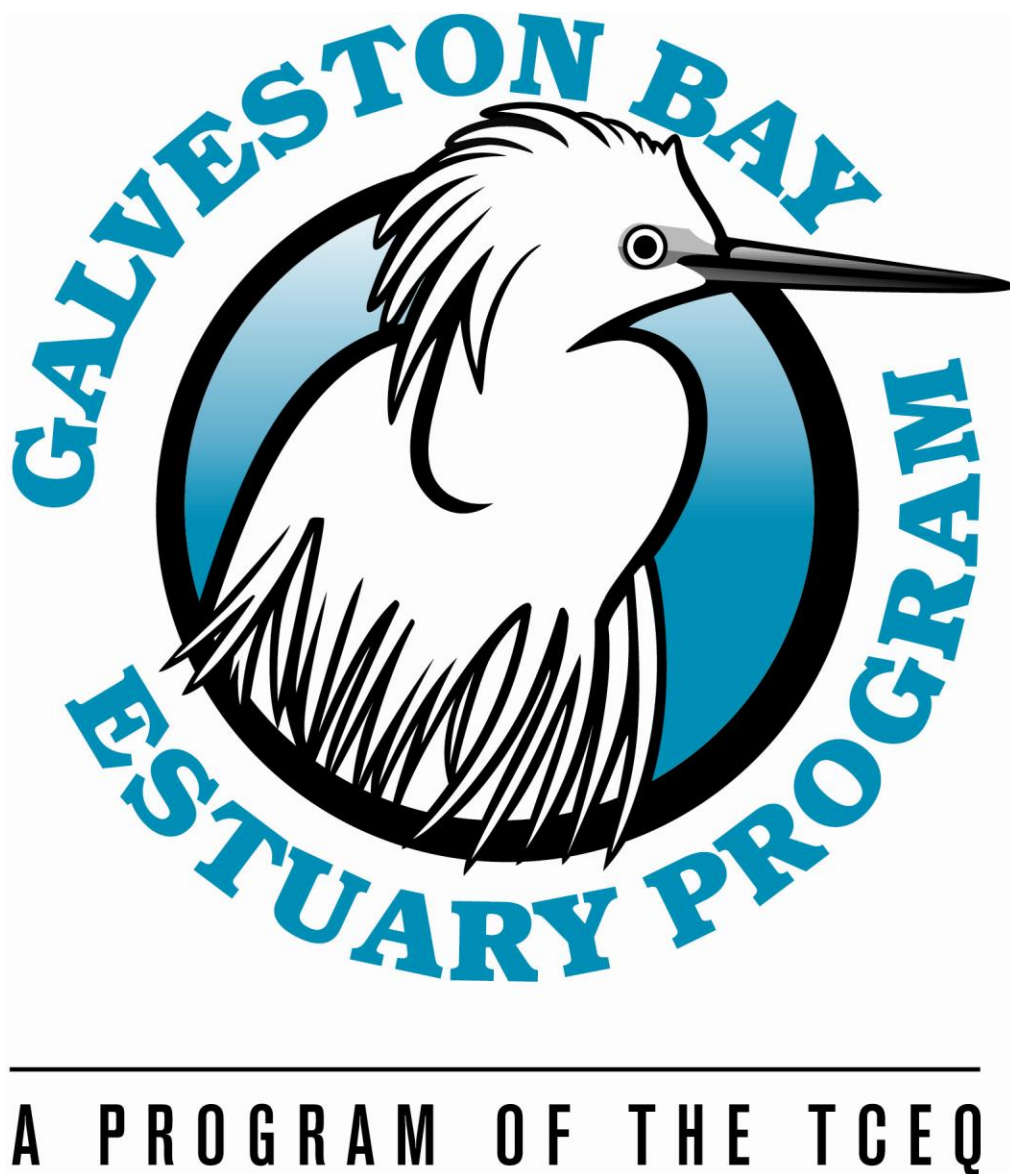


**FISCAL YEAR 2013
ANNUAL WORK PLAN**



May 2012

FISCAL YEAR 2013 ANNUAL WORK PLAN
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LIST OF ACRONYMS

Coastal Impact and Assistance Program	CIAP
Clean Water Act	CWA
Comprehensive Conservation Management Plan	CCMP
Data & Information Management System	DIMS
Galveston Bay Estuary Program	GBEP
Galveston Bay Foundation	GBF
Galveston Bay Information Center	GBIC
Galveston Bay Information Network	GBIN
Geographic Information System	GIS
Houston-Galveston Area Council	H-GAC
Houston Ship Channel	HSC
Memoranda of Agreement	MOA
Monitoring and Research	M&R
National Marine Fisheries Service	NMFS
Natural Resources Conservation Service	NRCS
Natural Resource Uses	NRU
Nonpoint Source	NPS
On Site Sewerage Facilities	OSSF
Public Participation & Education	PPE
Quality Assurance Project Plan	QAPP
Research Coordination Board	RCB
Texas A &M University	TAMU
Texas Department of State Health Services	TDSHS
Texas General Land Office	GLO
Texas Commission on Environmental Quality	TCEQ
Texas Parks and Wildlife Department	TPWD
The Galveston Bay Council	The Council
The Galveston Bay Plan	The Plan
U.S. Environmental Protection Agency	EPA

SECTION 1: PROGRAM OVERVIEW

Galveston Bay is the largest and one of the most productive estuaries in Texas and sits adjacent to one of the most heavily urban industrialized areas in the nation. The program's service area encompasses 232 miles of estuarine shoreline along the upper Texas Coast and incorporates the 5-county area bordering Galveston Bay: Liberty, Chambers, Harris, Galveston and Brazoria counties.

The Galveston Bay Estuary Program (GBEP) was established in 1989 to provide comprehensive management of this vital resource. In 1990, the GBEP began working with a diverse group of stakeholders to develop a comprehensive plan that would receive broad based support from and involvement by federal and state agencies with jurisdiction in Galveston Bay, industries and businesses, local government officials, commercial and recreational fisherman, conservation organizations, and citizens. In 1994, The Galveston Bay Plan (The Plan), the Comprehensive Conservation and Management Plan (CCMP), was complete, and in 1995 it was approved by the Governor of Texas and the EPA Administrator. This effort was jointly funded by the U.S. Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ).

The Plan identifies 82 action items to protect and restore the health and productivity of the estuary while supporting continued economic growth and public use of the Bay. GBEP received a grant from EPA to begin implementing The Plan in 1995. This grant ran from FY 1995-1999 and is now closed. Subsequent grants have run from FY 2000 – 2003, FY 2004 - FY 2007, and FY 2008 - 2010. Over 190 implementation projects were initiated under these grants. This work plan outlines the third year of projects to be implemented in the fifth grant that will run from FY 2011 to FY 2013.

The Galveston Bay Estuary Program has received fourteen national awards for its partnerships and progress in implementing The Plan and preserving the bay:

PRE 2008 GRANT AWARD

- Four awards from Coastal America (one in 1999, Clear Creek Habitat Restoration, using beneficial uses of dredge material, one in 2002 Galveston Island State Park Habitat Restoration, one in 2003 for Habitat Restoration at Jumbile Cove, and one in 2005 for San Jacinto State Park),
- One from NASA in 2001 for bay preservation,
- National Wetland Conservation Award for Delehide Cove Protection and Restoration from the U.S. Fish and Wildlife Service in 2006
- EPA Gulf of Mexico Program Gulf Guardian Partnership Award for the Brays Bayou Urban Wetlands project
- The Fisheries and Habitat Conservation Partnership award for the cumulative habitat conservation work on the part of the NRU Subcommittee
- Two EPA Gulf of Mexico Program Gulf Guardian Awards to Estuary Program partners, including an award in the non-profit category to SCENIC GALVESTON for the Virginia Point Coastal Preserve, which the Estuary Program played an instrumental role, and an award in the individual category to Dick Benoit, a highly active local citizen.

FY 2008-present

- EPA Gulf of Mexico Program awarded First Place Gulf Guardian Award in the Partnership category in for the East Bay Shoreline Protection Project
- The Department of Interior's Collaborative Conservation award for the East Bay Shoreline Protection Project
- EPA's Gulf of Mexico Program Gulf Guardian Partnership Award for North Deer Island
- Coastal America Partnership Award for North Deer Island

SECTION 2: INTRODUCTION

The Galveston Bay Estuary Program (GBEP), a special non-regulatory program of the Texas Commission on Environmental Quality (TCEQ), is a partnership of local governments, business and industry, conservation organizations, bay user groups, and resources agencies, charged with implementing The Galveston Bay Plan (The Plan), the Comprehensive Conservation Management Plan for Galveston Bay. The Program is part of the Office of Water-Water Quality Planning Division. A Program Director and staff of six located in the Houston-Galveston area directly oversee implementation. Program staff responsibilities follow.

- Acquire, manage, and disburse funds to implement specific actions in The Plan;
- Provide for coordination and communication among state and federal resource agencies for the many cross jurisdictional issues;
- Coordinate, monitor and track implementation activities of Plan Partners;
- Identify and communicate bay improvements to agencies, stakeholders, and the public;
- Conduct public outreach and education to increase awareness of Galveston Bay;
- Advocate conservation of the estuary; and,
- Maintain stakeholder involvement in the decision-making process through the Galveston Bay Council and its subcommittees.

SECTION 2.1: GALVESTON BAY ESTUARY PROGRAM ORGANIZATIONAL STRUCTURE

The TCEQ's Galveston Bay Estuary Program has the primary responsibility for coordinating and administering the work plan. Program staff and job descriptions are described below.

Helen E. Drummond, Program Director, is responsible for overall implementation of The Galveston Bay Plan, including: securing and managing funds to support operations, staff, and projects; fostering stakeholder involvement to facilitate Plan implementation; managing program staff and operations to ensure efficient use of resources; and representing GBEP on national, state, and local boards and committees and at national and state conferences/events to garner federal and state support.

Lindsey Lippert, Natural Resource Uses (NRU) Coordinator, is responsible for coordinating implementation of Habitat, Species, Freshwater Inflows, Shoreline Management, and Spills and Dumping actions in The Plan; coordination of Invasive Species Workgroup and NRU subcommittee of the GBC; implementing specific projects to restore and protect habitat and manage and control invasive species; maintaining Government Performance and Report Act (GPRA) and EPA reporting; coordinating quality assurance, and also serves as the contracts specialist and grants coordinator for the Estuary Program.

Steven R. Johnston, Monitoring and Research Coordinator, Water/Sediment Quality (WSQ) Coordinator, is responsible for coordinating implementation of storm water, wastewater, septic systems, seafood safety, and research actions in The Plan; coordinating the Regional Monitoring Program, including data management/reporting, and development and application of environmental indicators; facilitating the Monitoring/Research Subcommittee of the GBC; and researching, evaluating and reporting findings concerning scientific and technical issues impacting Plan implementation.

Ericka McCauley, Communications Coordinator (Conversion of PIO), is responsible for planning and organizing the Estuary Program's communication efforts. These efforts include providing information to stakeholders, the general public and the media as well as building consistent, cohesive messaging/branding for the bay and fostering behavior that supports a sustainable Galveston Bay through the public awareness campaign. This position also oversees the PPE subcommittee, the development and dissemination of GBEP publications, press releases and other materials; promotion of special events and projects; and Web site maintenance.

Cynthia Brum, Community Relations Specialist is responsible for building relationships and developing communication channels and dialogue with local government officials, private sector, and other outside organizations key to implementing *The Plan*. This position explores public-private partnerships that leverage expertise and financial resources toward common issues affecting Galveston Bay. the gain wider reach of communication to facilitate cross-sectoral learning of public relation and marketing activities for the Galveston Bay watershed; coordinates the Community Relations Task Force of the PPE subcommittee, organizes and manages community relations events and the State of the Bay symposium, and tracks emerging stakeholder community concerns/issues.

Mary Villareal, Education Coordinator and Outreach Support, handles GBEP exhibiting events, coordinates the K-Adult task force of the PPE subcommittee, maintains Program contacts database, conducts k-12 presentations, and supports general activities of the PPE Team and Subcommittee. She also handles purchasing and timekeeping.

Doretta G. Thomas, Administrative Assistant, is responsible for travel coordination, vehicle and equipment maintenance and repairs, mail, correspondence, office safety, and general administrative support for the Program Director.

SECTION 2.2: FY 2012 GOALS AND ACCOMPLISHMENTS

Estuary Program partners made notable achievements in improving water quality, restoring wetlands, protecting unique habitats and educating the public in 2012. Those achievements include:

HABITAT & LANDSCAPE-LEVEL CONSERVATION: CREATING, RESTORING, & PROTECTING COASTAL HABITAT

The Estuary Program and its partners created, protected, and enhanced 3,975 acres of important coastal habitats, leveraging \$11.68 million in local, industry, state, and federal contributions. Activities included restoring wetlands at McAllis Point and throughout West Bay, controlling Brazilian pepper tree and other invasive species on Galveston Island, and putting 700 acres of coastal habitat into permanent conservation through an easement at Savannah Oaks. Through the NRU Subcommittee's coordination, two projects (Settegast Coastal Heritage Preserve and Bird Island Cove Restoration) were awarded National Coastal Wetlands grants (CWPPRA) through the US Fish and Wildlife Service.

In addition, conservation of the Savannah Oaks property in the West Bay watershed marks the first time that a Purchase of Development Rights agreement has been issued through the Texas General Land Office's Texas Farm and Ranch Lands Conservation Program. It is also the first conservation easement purchased by the Estuary Program and the TCEQ. Savannah Oaks Ranch-family-owned for over a hundred years-is a 700-acre rice farm near the Brazoria National Wildlife Refuge, situated at the convergence of Austin and Flores Bayous. The property provides much needed habitat for the declining mottled duck population, which thrives on rice fields. Under this land agreement, the family will continue to maintain the property's current use as a working farm while preserving its wildlife values in perpetuity.

Although the Estuary Program partnership's habitat conservation efforts are bay-wide, focus has been given to West Bay. These combined, collective efforts in West Bay were highlighted in the President's 2011 Fifty-State America's Great Outdoors Report as one of the country's most promising projects. The report highlights initiatives in each state for conservation, recreation and reconnecting people to the outdoors.

IMPROVING & PROTECTING WATER QUALITY: SUPPORTING CORE CLEAN WATER ACT PROGRAMS

The Estuary Program continued to support several core clean water act programs, including Section 319 NPS Program and the Total Maximum Daily Load Program, through increased coordination and connection of these

programs with local governments and other on-the-ground implementers in the Galveston Bay area. This has resulted in leveraging \$3 million in local and federal contributions.

The Estuary Program continued to directly support water quality improvement through developing watershed protection plans (WPP) and water quality improvement practices (WQIPs):

Watershed Protection Plan Development

Using \$481,000 in American Recovery and Reinvestment Act funding combined with state and Section 320 funding, the Estuary Program completed two watershed characterization projects in Double Bayou and Highland Bayou watershed. Highland Bayou is listed for high bacteria and low dissolved oxygen in 5a and 5c status respectively, on TCEQ's 2008 303(d) list. Double Bayou is listed on the same report for high insistence of bacteria and low dissolved oxygen but was placed in 5c status. As a result, the Estuary Program collected additional data, begun source identification and initiated the stakeholder involvement process. Both characterizations were completed during the fall of 2011. Double Bayou WPP development efforts continue under a Section 319 grant funded through Texas State Soil and Water Conservation Board's (TSSWCB) Non-Point Source (NPS) Program. The Estuary Program is continuing to support Highland Bayou's WPP development in 2012.

Following Estuary Program presentations about Galveston Bay and CCMP implementation to community groups and the city of Baytown in 2011, citizens and the city became interested in developing a WPP on Cedar Bayou. Program staff provided technical assistance regarding WPP development requirements and linked Cedar Bayou stakeholders with groups developing WPPs in other areas. A partnership was formed and Section 319 NPS funding was sought and awarded through TSSWCB NPS Program for WPP development. The Estuary Program provides important non-federal match to the project and serves in an advisory capacity to the stakeholder working group.

Program staff continued to participate in and provide technical assistance to new and ongoing bay-wide watershed-based management efforts including Galveston Bay oyster waters plan implementation, Houston area bacteria implementation initiatives, and Dickinson Bayou Watershed Partnership projects. Additionally, technical assistance was provided to develop a watershed implementation group in Armand Bayou. This group formed a non-profit to specifically focus on Armand bayou issues. Through the Estuary Program strategic coordination and assistance over the past few years, all watersheds in the Galveston Bay area listed on the state's 2010 303(d) are under active watershed-based management involving local stakeholders.

Water Quality Improvement Projects

The Estuary Program directly supported Water Quality Improvement Projects (WQIP) demonstrations. Three WQIP were completed, one on Horsepen Bayou at tributary to Armand Bayou and two in the Dickinson Bayou watershed. The WQIPs are being monitored to collect valuable data to demonstrate "proof of concept" for local and regional governments, businesses, and watershed planners to improve water quality and improve WPP implementation. Additionally, staff assisted the city of League City in developing a project to secure Section 319 funding through TCEQ's NPS Program.

IMPROVING RESOURCE MANAGEMENT THROUGH TARGTED RESEARCH THAT INCREASES ECOSYSTEM UNDERSTANDING

The Estuary Program completed an update of the Status and Trends (S&T) and State of the Bay 3rd edition. Ongoing research projects include the Effects of Fresh Water Inflows on the Phytoplankton Community and Nutrient and Sediment Loadings from the Trinity and San Jacinto Rivers.

In addition, the Estuary Program coordinated with Stanford/Texas Nature Conservancy's proposal "An approach based in ecosystem services to develop methodologies for quantitatively assessing the economic and social costs and benefits of nature-based and engineered adaptation to a dynamic coastal environment." The Gulf Alliance provided a \$250,000 award. The Program will be working with TNC to determine how to ensure the project supports GBEP's mission and look for ways to expand or coordinate with other regional ecosystem services efforts.

CONTINUE BUILDING REGIONAL SUPPORT FOR PUBLIC PARTICIPATION AND EDUCATION

Stakeholders identified fostering public support and build public stewardship on a large scale as the second highest priority in the Estuary Program's *Charting the Course: Galveston Bay Strategic Action Plan*. To address this priority and to begin to strategically build regional support for sustaining a healthy Galveston Bay, the Estuary Program collaborated on bay-related, community-based initiatives; expanded partnerships with local governments; led discussions on bay-related and Gulf-related issues and concerns; and executed the only regional, partner-supported campaign to increase awareness of Galveston Bay. Examples of these activities include:

- Supported community-based events such as Trash Bash, Day, and Marsh Mania;
- Provided presentations to industry, businesses, citizen groups, non-profit organizations, schools, and governmental organizations;
- Garnered support for the campaign with Houston-area businesses and conservation groups, and local governments in key watersheds: Dickinson, Cedar Bayou, and Armand Bayou;
- Secured a partnership with a local news station;
- Provided forums for Gulf-wide efforts such as the Gulf Coast Ecosystem Task Force listening sessions;
- Assisted with coordinating local and Gulf-wide communication on the Gulf oil spill—this includes leading the Gulf NEPs to discuss communication and outreach efforts each NEP was doing in response to the oil spill;
- Tracked news related to ongoing issues such as freshwater inflows;
- Lead partners to collaborate on Galveston Bay-related news stories, and coordinating local communication about the affects of the drought on the bay;
- Branded Galveston Bay to increase awareness of its value and behavior changes that help protect the bay through a coordinated, regionally implemented campaign.
- Organized ribbon-cutting ceremonies for the Dickinson Bayou rain garden and UHCL wetland projects, and promoting these projects as well as the completion of the Savannah Oaks project.

Galveston Bay Public Awareness Campaign

The Estuary Program began the development of a public awareness/stakeholder-involvement campaign to reinforce implementation of *The Galveston Bay Plan's* priorities. The goals of the Galveston Bay Public Awareness and Education Campaign—called *Back the Bay*—are to build awareness of the value of Galveston Bay, and encourage and incentivize actions that support habitat conservation, water conservation, and water quality improvement.

To uncover barriers to behavior change, and to identify audiences willing to support behavior changes as well as favorable messages and materials, the Estuary Program researched consumer attitudes and knowledge about Galveston Bay. GBEP staff also conducted in-depth interviews with stakeholders on the campaign themes, messages, and creative materials.

The research revealed that Galveston area residents are relatively willing to change their behaviors to better serve the health of Galveston Bay. However, there are some key barriers that leave many area residents feeling disconnected from the bay. The research also identified a central campaign theme or brand (*Back the*

Bay) that audiences related to as well as key messages that help consumers feel a stronger connection to the bay and, therefore, become more willing to change their behaviors to better serve the bay's health. The research also revealed two key consumer groups as the target audience for the campaign.

In the Summer of 2011, the Estuary Program launched the Pilot Market Program in Pearland, Texas. The Pilot Market Program tested the campaign's messaging and look on a smaller scale. The pilot used pre-campaign research results to formulate appropriate messaging for Pearland. Results from the Pilot Market Program are as follows:

- 6.5 million estimated impressions through advertising
- Publicity in the Pearland Journal and homeowner newsletters
- 350+ exhibit visitors during 2 Pearland events
- 190 ***Back the Bay*** pledges
- Logo on roadside watershed signs in Cedar Bayou, Lake Houston, Halls Bayou

Research conducted immediately after the Pilot Market Program revealed that public awareness about the bay decreased in Summer 2011 when compared to awareness levels surveyed in Summer 2010. High levels of awareness in 2010 were attributed to the BP oil spill—which dominated news coverage in 2010. We also found a statistically significant increase of Pearland residents who said that they knew that the water that enters the storm drain flows ends up in Galveston Bay (60% in 2010; 69% in 2011); and a statistically significant increase of Pearland residents who said that their daily activities around their homes has a lot of impact on the overall health of Galveston Bay (5% in 2010; 12% in 2011). These results show that those who have seen, read or heard anything about the Bay are more apt to recall specific messaging

This year, we are implementing the campaign on a regional level. Implementation initiatives include: Officially launching at Bay Day Kemah Boardwalk, June 9, 2012; securing partnerships with KPRC-Channel 2, local governments, H-GAC, Galveston Bay Foundation, CCA, Ducks Unlimited; and increasing awareness of Galveston Bay, its recreational activities, and positive behavior changes citizens can do at home.

In Spring of 2012, GBEP launched its partnership with KPRC Local 2 and Click2Houston.com. The Estuary Program began airing 7-second and 15-second television ads during weekly newscasts promoting resident's connection to Galveston Bay—a key campaign message—and the campaign brand, *Back the Bay*. The Estuary Program also placed online advertisements on the Weather page of Click2Houston.com (KPRC Local 2's website). These ads feature the value of Galveston Bay as well as residents' connection to the bay.

By targeting these television times, we expect to reach 72.7% of all TV households that will see the messages 4.7 times and 47.6% of all adults aged 18+ who will see the messages 3.6 times. (Total TV Households in Houston is over 2,177,220 and the adult 18+ population is 4,480,056.) Since the launch of the campaign advertising with Channel 2, our partnership with them has achieved the following: 7,523,746 impressions on the Justweather.com (Channel 2 website); and 4150 click-thrus to BacktheBay.org. The fixed widget on the Weather home page delivered 55% of all the impressions (4,130,000 of the 7,523,746) yet delivered 65% of all the click-thrus 2715 of 4150! Also, an estimated 1.8 million viewers 18+ have seen the TV ads since March 26, 2012.

Bay Day

The Estuary Program will officially launch the *Back the Bay* campaign at the Galveston Bay Foundation's 2012 Bay Day Festival—the only event of its kind in the Houston-Galveston area that focuses on and celebrates Galveston Bay. This free public event will be held on Saturday, June 9, 2012 at the Kemah Boardwalk.

The event features live entertainment, interactive exhibits, and a scavenger hunt. Children and adults learned about the importance of Galveston Bay at exhibitor booths including the Galveston Bay Estuary Program, Baytown Nature Center, Gulf of Mexico Foundation, Texas A&M Sea Camp, Texas Fly Fishing of Houston, and many more. They also had opportunities to meet and interact with different types of bay wildlife, meet the Houston Texans cheerleaders and mascot Toro, view NRG Energy's new electric car charging stations that will soon appear around Houston, and learn more about Reliant Energy's new "EcoShare" program. It is estimated that over 3,000 people will attend the celebration.

Trash Bash

In March 2012, the Estuary Program coordinated the 19th Annual Trash Bash cleanup at Mason Park along Brays Bayou—a predominantly Spanish-speaking neighborhood, and one of 17 sites across the Houston-Galveston area. The event promotes environmental stewardship and encourages volunteers to do their part at home by properly disposing of trash, household chemicals, and pet waste.

Over 200 volunteers collected an estimated 1400lbs of trash at Mason Park. Their efforts enabled 50lbs of materials to be recycled. Each year, Trash Bash meets or surpasses volunteer goals. In one day, volunteers from all over the Houston-Galveston area cleaned 176 miles of shoreline, collected approximately 54,000 pounds of trash—including 474 tires—and recycled 7,113 pounds of trash! To date, more than 70,000 volunteers from 13 counties have collected over 1,800 tons of trash.

In September 2009, Trash Bash TM received the 3rd Place - Civic/Nonprofit Gulf Guardian Award. In 2008, the Estuary Program was instrumental in incorporating Brays Bayou as an official Trash Bash TM site. Coordinated by the Houston-Galveston Area Council, this regional watershed trash clean up is financed and organized by local sponsors including the Estuary Program.

COLLABORATING GULF-WIDE THROUGH GULF OF MEXICO ALLIANCE

The Estuary Program assisted the efforts of the Gulf of Mexico Alliance's Environmental Education Priority Issues Team and Public Relations Committee. Our Public Information Officer serves as a Texas co-lead for Environmental Education Priority Issues Team, providing leadership for regional coordination of the Alliance's priority issues, facilitating communications between the Alliance and local stakeholders and coordinating local meetings. Efforts include promotion of the August 2010 All-Hands meeting, coordinating distribution of Gulf of Mexico Oil Spill information, and finalizing the public relations plan for the Alliance.

FY 2012 LEVERAGING

EPA Funds to Program (Section 320)	Other Federal Funds (Role - Primary)	State Funds to Program (Role - Primary)	Local Government Funds to Program and In-Kind (Role-Primary)	Private to GBEP Projects & In-kind (Role - Significant)
\$598,800	\$10,000,000	\$1,500,000		\$180,000

FY 2012 TRAVEL AND TECH TRANSFER

Event, Location, Purpose	Staff Person	Amount
Ecosystem Services Workshop – The Woodlands, TX September 2011	Lindsey, Steven, Ericka, Cynthia, Helen	\$0
Association of National Estuary Programs Directors Meeting – Los Angeles, CA October 2011	Helen	\$1,363
2011 State of the Gulf Summit – Houston, TX November 2011	Helen and Lindsey	\$900
West Bay Regional Sediment Management Workshop – Galveston, TX February 2012	Lindsey	\$0
Gulf of Mexico Alliance All Hands meeting – Corpus Christi, TX June 2012	Ericka	\$115
Total		\$2,378

SECTION 2.3 STRATEGIC ACTION PLAN GOALS TO FOCUS ON IN FY 2013

- Create, Restore, and Protect Important Coastal Habitats
- Eradicate or reduce populations of exotic invasive species and prevent new invasions.
- Reduce NPS Pollutant Loads.
- Create a sense of personal ownership and shared responsibility among all cultural components of the community, including the public, industry and government.
- Ensure that stakeholders receive the knowledge necessary to act on Estuary Program's priorities in ways that benefit the bay and the entire community.

FY2013 EXPECTED OUTCOMES

- Create, restore, and protect important coastal habitats.
- Eradicate or reduce populations of exotic invasive species and prevent new invasions.
- Increased coordination and more strategic implementation of water quality improvement activities in Armand, Double Bayou, Highland Bayou, Clear Creek, and Dickinson Bayou watersheds.
- Increase technical transfer from demonstration projects with local governments concerning the value of storm water wetlands for improving storm water and assisting implementation of their NPDES permits.
- Inform and educate approximately 2,800 adults, 1,000 children and 4 local governments through presentations, exhibiting events, voluntary events, and the *Back the Bay* campaign.
- Continue to build a brand for Galveston Bay across the Houston-Galveston region through the implementation of *Back the Bay* campaign.
- Continue to elevate the prominence of Galveston Bay issues in the local media and the general public's ability to recall Galveston Bay issues through a targeted media blitz (PSAs, paid advertisements, social media, and increased media coverage) in Brazoria, Chambers, Galveston, Harris and Liberty counties.

FY2013 EXPECTED OUTPUTS

- Conserve and protect 500 acres of habitat.
- Restore and enhance 500 acres of habitat.
- Complete one draft WPP to be submitted to the EPA for review.
- Begin one WQIP in Galveston or Brazoria County.
- Complete WQIP best management park in the city of League City
- Facilitate one 319 funded project and/or SRF proposal with a local government.
- Complete 20 presentations to bay user groups, civic groups, non-profit organizations and schools and provide exhibits at 5 local events.
- Continue implementing the Galveston Bay Awareness and Education campaign.
- Develop and deliver 10 televised and web-based environmental stories concerning Galveston Bay.

FY 2013 STATE AND FEDERAL FUNDING

The total cost of the FY 2013 work plan is \$1,194,666. Fifty percent (\$597,333) of the project cost is provided by federal funds; fifty percent (\$597,333) in match is being provided by TCEQ through general revenue. These figures exclude additional state and local funding.

DIVISION	AMOUNT	% OF TOTAL
Office of Water/GBEP	\$1,194,666	100%
Total	\$1,194,666	100%

Budget Detail- See Also Budget Worksheets	
Salaries (Includes Fringe and Indirect)	\$525,192
Travel	1,000
Capital	
Supplies	2,000
Contracts	\$320,000
Other	\$349,474
Total	\$1,194,666

PROJECT SCHEDULE

The execution of the tasks associated with this work plan will occur over a 36-month period, which is anticipated to begin September 1, 2012, and end August 31, 2015. The exact start date of the work plan and all due dates for deliverables are contingent upon the actual date the grant funds are awarded and able to be contracted out.

The projects outlined in this work plan were developed by the Natural Resource Uses Subcommittee, Water and Sediment Quality Subcommittee, Monitoring Subcommittee, Public Participation and Education Subcommittee, and the Monitoring and Research Subcommittees, ranked by the Budget and Priorities Subcommittee, and submitted to the Galveston Bay Council for approval in April. The Council approved projects listed in this work plan at the April 25, 2012 quarterly meeting.

The project work plans will be submitted to TCEQ Quality Assurance Officer and EPA Project Officer for review to determine which projects in the work plan will require a Quality Assurance Project Plan (QAPP). Under the authority granted by EPA to TCEQ to approve QAPPs for the Estuary Program, GBEP staff and their project partners will develop QAPPs for projects determined by TCEQ and EPA during the work plan review as requiring QAPPs. QAPPs will be developed in accordance with EPA QA/R-5.

SECTION 3: FY 2013 PROJECTS
SECTION 3.1: FY 2013 FEDERAL PROJECTS BY PROGRAM ELEMENT

Project Name	FY 2013 Budget Request			Project Total
	Federal	State Match	Total 2013 GBEP Budget	
Program Administration (Annual)	\$ 262,596.00	\$ 262,596.00	\$ 525,192.00	\$525,192.00
ADMIN TOTAL	\$ 262,596.00	\$ 262,596.00	\$ 525,192.00	
Conservation Assistance Program	\$ 62,500.00	\$ 62,500.00	\$ 125,000.00	\$2,300,000.00
NRU TOTAL	\$ 62,500.00	\$ 62,500.00	\$ 125,000.00	
Galveston and Brazoria County Storm Water Quality Improvement	\$ 69,904.00	\$ 69,904.00	\$ 139,808.00	\$495,000.00
WSQ TOTAL	\$ 69,904.00	\$ 69,904.00	\$ 139,808.00	
GB Public Awareness Campaign	\$ 160,000.00	\$ 160,000.00	\$ 320,000.00	\$1,844,755.81
Trash Bash 2013	\$ 4,833.00	\$ 4,833.00	\$ 9,666.00	\$9,666.00
GBEP Website	\$ 5,000.00	\$ 5,000.00	\$ 10,000.00	\$10,000.00
PPE TOTAL	\$ 169,833.00	\$ 169,833.00	\$ 339,666.00	
Status and Trends	\$ 32,500.00	\$ 32,500.00	\$ 65,000.00	\$65,000.00
M&R TOTAL	\$ 32,500.00	\$ 32,500.00	\$ 65,000.00	
FUNDING REQUEST GRANT TOTAL	\$ 597,333.00	\$ 597,333.00	\$ 1,194,666.00	

SECTION 3: FY 2013 PROJECTS
SECTION 3.2: FY 2012 FEDERAL PROJECT DESCRIPTIONS

3.2A - NRU Projects for FY 2013

1. CONSERVATION ASSISTANCE PROGRAM

CCMP Actions Implemented: HP-1, HP-5, SP-1, SM-5, PPE-1

SAP Objectives: *Habitat Protection Goal 1 Objectives A and B; Public Stewardship Goal 1 Objective 3; Public Education Goal 1, Objective B; Fostering Implementation*

Lead: Galveston Bay Foundation/TX Coastal Partners

FY13 Budget: \$125,000

Milestones: upon signature to 8/31/2014

Description: The goal of the Conservation Assistance Program (CAP) is to support regional efforts to preserve wetlands and important coastal habitats that will protect the long-term health and productivity of Galveston Bay. With the help and consensus of conservation partners, a collaborative effort between GBF and TCP will identify conservation projects, develop funding strategies, work with landowners to negotiate conservation transactions, carry out due diligence, and finalize purchase and transfer of title to the appropriate land conservation entity.

GBF and TCP will coordinate efforts to accomplish three objectives:

- Permanently preserve coastal wetlands and natural areas
- Facilitate a land conservation work group of local stakeholders
- Provide technical, legal, and transactional support for local conservation projects

Status: This project was approved by the TCEQ and EPA in the FY 2010 work plan, and the contract with Galveston Bay Foundation (GBF) was signed in August 2011. The TCEQ expects to receive the CIAP money in the Spring of 2012, but will need to enter into a contract with the GLO. The GBF and Texas Coastal Partners (TCP) are currently identifying possible willing sellers and coordinating with conservation partners to develop a prioritized list of conservation projects, funding strategies, and the next conservation project. There will be additional opportunities to leverage current funding, as project partners will match up potential conservation projects with other federal and state sources of funding.

The CAP's initial results were the recent conservation of the Savannah Oaks property in the West Bay watershed. The Savannah Oaks Conservation Easement, discussed below, is an example where \$301,000 in CIAP was leveraged with an additional \$600,000 in federal, private and in-kind funding. This event marks the first time that a Purchase of Development Rights agreement has been issued through the Texas General Land Office's Texas Farm and Ranch Lands Conservation Program. It is also the first conservation easement purchased by the Estuary Program and the TCEQ.

Savannah Oaks Ranch-family-owned for over a hundred years-is a 700-acre rice farm near the Brazoria National Wildlife Refuge, situated at the convergence of Austin and Flores Bayous. The property provides much needed habitat for the declining mottled duck population, which thrives on rice fields. Under this land agreement, the family will continue to maintain the property's current use as a working farm while preserving its wildlife values in perpetuity.

Outputs/Products: Final Report

Outcomes

Short-term: development of prioritized list of conservation projects and funding strategies

Intermediate: Completion of 1-3 conservation projects in the lower Galveston Bay watershed through fee-simple acquisition, easement, or purchase of development rights.

Long Term: The permanent conservation of coastal habitat and preservation of important hydrologic and water quality functions in West Bay;

Pressures (+/-): Decreasing pressure on West Bay due to increased protection of coastal habitat from development.

3.2B - WSQ Projects for FY 2013

2. GALVESTON AND BRAZORIA COUNTY STORM WATER QUALITY IMPROVEMENT

Grantee/Contractor: TX A&M SeaGrant

FY13 Budget: \$125,290

Project Total: \$495,000

Milestones: upon signature to 05/31/2015

Status: This project was listed as the NPS Reduction Water Quality Implementation in the 2012 work plan. The project was approved by TCEQ and EPA for the FY 2012 work plan and the contract will be executed by Summer 2012. The project is scalable and will be implemented over multiple years. Funds will be added in future years as they become available. Long-term implementation of Watershed Protection Plans (WPPs) and the water quality improvement action plan in the Galveston Bay Plan will be ongoing for several years.

Description: The purpose of this project is to demonstrate and advance the effective use of created multi-functional storm water detention basins as water quality improvement practices (WQIP) that will result in measurable storm water quality improvement. TX A&M SeaGrant will assist watershed communities to plan, design, and install storm water wetlands to improve the quality of storm water runoff. AgriLife will directly participate in and complete two or more storm water wetlands in the target area of Galveston and Brazoria Counties to demonstrate the “proof of concept” for local and regional governments.

Cities and counties in the watershed are installing flood detention basins to mitigate the effects of development. This infrastructure presents an opportunity to convert at a minimum two local or regional detention basins into model stormwater treatment wetlands. Through this project, the Sea Grant will develop key relationships with local governments (e.g. municipal, municipal utility districts, drainage districts, reclamation and conservation districts, and county governments) asking them to participate in one-on-one meetings and forming a regional stormwater task force.

The one-on-one meetings and the task force will provide a forum to discuss best management practices, particularly stormwater wetlands, identify areas and sites where local or regional WQIPs could be installed, and determine funding opportunities. The Sea Grant will also investigate opportunities to integrate private land owner interests in using WQIPs on private land that has benefits for both the land owner and the citizens within the watershed. Projects will be identified across the target area. The Sea Grant will work with the task force to prioritize the projects based on key metrics (e.g., time, cost, size, feasibility, and benefits) and create a strategic approach for installing stormwater wetlands in the region.

Once prioritized, the Sea Grant will create a funding plan for a minimum of two projects that includes a mix of local and regional contributions with identified federal and state sources. Using this Agreement’s available implementation funding, local contributions and any additional sources, the Sea Grant will initiate at a minimum two projects that will restore/create stormwater detention wetlands and upland habitat within the

identified area. The wetland will be created as multi-function wetland basins to improve water quality, create habitat, and increase recreation opportunities all the while reducing the occurrence of floods.

This project will serve as a model for future work by local and regional governments in Galveston and Brazoria Counties. The Sea Grant will create a fact sheet intended for a general municipal audience on how to strategically select new or retrofit WQIP, particularly stormwater wetlands, within a stormwater or drainage district. Finally the Sea Grant will assist participating municipal separate sewer systems (MS4s) to find resources to develop trails boardwalks and overlooks that include educational signs to communicate the importance of coastal natural resources and efforts to protect them.

Outputs/Products: 1) formation and routine meetings of the regional stormwater taskforce and one-on-one meetings; 2) a list of potential sites to construct WQIPs; 3) site plans and specifications to modify at a minimum two planned detention basins, community parks, or government owned land; plans will include construction specifications, costs and funding strategy, design elements, anticipated detention, amount and water quality benefit, location of plants and future boardwalks/overlooks, and educational signs; 4) construction/excavation of at a minimum two sites; final acreage will be based on the site assessment and historic photo inspection to determine the best location for wetland or wetland complex; 5) an invitation to volunteers (e.g. TX Master Naturalists, Marsh Maniacs, local schools, and citizens) to participate in planting the constructed wetland; and 6) a fact sheet intended for a general municipal audience on how to strategically select new or retrofit WQIP, particularly stormwater wetlands, within a stormwater or drainage district.

Outcomes

Short-term: 30 to 60 acres of storm water wetlands

Intermediate: Develop a model for future county work and develop a county coordination team to share ideas and results

Long Term: Expand use of green corridors concepts in flood plain management along riparian areas.

Pressures (+/-): The population in Brazoria County is anticipated to double over the next 30 years with the possible loss of habitat and degraded water quality a negative effect. Increased use of green infrastructure and water quality improvement best management practices should assist in eliminating and protecting future water quality, particularly when incorporated within long range planning.

3.2C - PPE Projects for FY 2013

3. GALVESTON BAY PUBLIC AWARENESS AND EDUCATION CAMPAIGN

Grantee/Contractor: EnviroMedia Social Marketing

FY 13 Budget: \$320,000 (GBEP)

Total Budget: \$2,360,000 (Coastal Impact Assistance Program (CIAP))

Milestones: upon signature to 08/31/2015

Status: This project was initially approved by TCEQ and EPA for the FY 2008 work plan. Implementation is scalable and was designed to be carried out over several years with funding being added as it became available. The original contract was signed 2/3/10, and requires annual renewal amendments. Funding for bay-wide implementation (i.e., Brazoria, Galveston, Harris, Chambers and Liberty counties) began in September 2011 (FY 2012).

Description: The Estuary Program developed a regional public stewardship campaign, called "Back the Bay," to increase public awareness and education about Galveston Bay. The campaign offers a fun and interactive way for residents to learn about the benefits of, and their connection to, our region's most valuable natural resource. The campaign also features conservation tips that benefit the Bay. The campaign will be used to

reinforce implementation of The Galveston Bay Plan's priorities. This specifically include: watershed-based, water-quality-improvement initiatives; habitat conservation; and freshwater inflows.

The campaign is being implemented in a phased rollout through August 2015. The campaign is comprehensive in nature and includes two phases. The first phase started with a pre-research project (Summer 2010) and a pilot program project in a limited geographical region (Summer 2011) and post-pilot research (Summer 2011). These projects developed and tested campaign messages, as well as creative and other tactics, and a campaign plan. The second phase began Spring 2012, and expanded to the entire five-county region. In order to maximize awareness and effectiveness, the campaign will expand as quickly as the budget allows both geographically and in terms of the media mix.

Outputs/Products: Final Report, media buys, survey results, print materials

Outcomes

Short-term: Increase awareness of bay's value among target audiences through a branding Galveston Bay, targeting media outlets to increase news coverage on the bay and its challenges

Intermediate: Identify desired behaviors for habitat preservation, increase in water quality and water consumption, identify barriers to desired behavior change in target audiences; continue to increase awareness of bay's value among target audiences through a branding Galveston Bay, targeting media outlets to increase news coverage on the bay and its challenges.

Long Term: Change behaviors of audiences that are associated with habitat loss, degraded water quality, and water consumption in appropriate-identified percentage of the Houston-Galveston area targeted audiences—those whose behavior change will affect the most positive change. (Percentage of behavior change—as well as type—and target audiences to be determined through extensive preliminary research before campaign implementation and throughout campaign implementation.)

Pressures (+/-): Ability to raise funds through FY 2015—the project end date and competing management priorities.

4. TRASH BASH 2013

Grantee/Contractor: Houston-Galveston Area Council

FY 13 Budget: \$9,666.00

Milestones: Upon approval thru 8/31/13

Status: This is an annual project funded at various levels each year. TCEQ and EPA approved the project for the FY 12 work plan, and GBEP is proposing it again for FY 13.

Description: Trash Bash is a successful volunteer-based litter cleanup event that has been held at multiple sites in the Houston-Galveston area on an annual basis since 1994. The mission of Trash Bash is to "promote environmental stewardship of our watershed through public education by utilizing hands-on educational tools and by developing partnerships between environmental, governmental and private organizations." This grant's funds help promote and implement the Trash Bash 2013 by paying for items such as, but not limited to, supporting an intern to coordinate activities with site leads and collect and share results, printing and postage of promotional materials and for acquiring supplies for the participating sites.

Outputs/Products: Final report including a copy of the press release, media advisory, a paid advertisement, number of trash bash sites, number of volunteers and hours, number of exhibitors, number of partners organizing the event, number of save-the-date cards mailed to potential participants, and a survey.

Outcomes:

Short-term: Increase number of new participants by 10%; increase pounds of trash collected by 1%; increase pounds of materials recycled by 10%; increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at one Trash Bash location (Mason Park); increase news coverage of the Trash Bash event and the harmful environmental impacts of littering on our area waterways by 10%; increase the dollar value of free publicity from the news coverage by 10%.

Intermediate: Increase awareness of behavior changes associated with litter prevention in a neighborhood located next to Mason Park.

Long Term: Increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at all Trash Bash locations (Mason Park). Decrease the amount of trash flowing into area waterways through educating citizens on appropriate behavior changes i.e. do not litter in your neighborhood, along the roads, etc.

Pressures (+/-): Continued increase in the amount of trash flowing into area waterways from influxes in populations not familiar with the harmful environmental impacts of littering and disconnection with community pride associated with litter-free neighborhoods.

5. GALVESTON BAY ESTUARY PROGRAM WEB SITE

Grantee/Contractor: The Wilkins Group (current vendor) or another vendor

FY13 Budget: \$10,000 (\$1,400 is for annual hosting costs)

Milestones: Annual

Status: This is an annual project funded at various levels each year. TCEQ and EPA approved the project for the FY 12 work plan. GBEP is proposing that this annual project be augmented for FY 13 to include updating the GBEP website.

Description: Revise and Update GBEP Web site, and provide hosting services and Web statistics.

Outputs: Revise the GBEP Website. Update it for usability and ease of maintenance. Increase updates to Web site; Increase Web site hits and length of time users spend on the site; survey frequent users of the site to gauge interest in content and Web site improvements.

3.2D – M&R Projects for FY 2013

6. STATUS AND TRENDS

Grantee/Contractor: TBD

FY 2013 Budget: \$65,000

Status: This is annual project funded each year to fulfill GBEP reporting requirements and LBB measures. TCEQ and EPA approved this project in previous fiscal years, and GBEP is proposing it for continued support in FY 2013. The project will include annual update of status and trends data, and the contract will be developed once a contractor is selected.

Description: The Galveston Bay Plan's monitoring and research program is designed to maximize the effectiveness of plan implementation by increasing understanding of the bay ecosystem, assessing environmental health (or conditions), improving resource management, evaluating the efficacy of actions implemented, communicating results, and recommending corrective action. To carry out this purpose, a data and information management system is maintained, environmental and programmatic assessments are conducted as needed, data gaps are identified, applied research needs are prioritized, and a State of the Bay

Symposium is convened.

Status and Trends is a component of the data and information management system. It is an analysis of monitoring data that is used to help determine changes in the health of the ecosystem. Data are assembled from state and local monitoring partners, analyzed, and distributed to all potential users electronically.

The annual Status and Trends project will provide the latest Status and Trend data for Galveston Bay indicators previously identified and approved by the Galveston Bay Council. Data sets include water quality, fisheries, wetlands, land use, birds, seafood advisories, oyster harvest closures, and others.

Outputs: Final Report, update of indicators and status and trends graphs and maps

Outcomes

Short-term: Annual update of all state and federal environmental data.

Intermediate: Website maintained, improve, updated, and users tracked.

Long Term: Use of data and website by Estuary Program, stakeholders, researchers, decision makers, and the public.

Pressures (+/-): Loss of data and ability of access has been a long term concern that is eliminated by maintaining an annual Status and Trends project.

SECTION 4: FY 2013 GRANT BUDGET SPREADSHEET

Grant Roll Up (All Divisions/FYs)

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NOTE: Amounts not rounded

SECTION 5: FY 2012 PROJECTS
SECTION 5.1: FY 2012 FEDERAL PROJECTS BY PROGRAM ELEMENT

The projects outlined in this work plan were developed by the Natural Resource Uses Subcommittee, Water and Sediment Quality Subcommittee, Monitoring Subcommittee, Public Participation and Education Subcommittee, and the Monitoring and Research Subcommittees, ranked by the Budget and Priorities Subcommittee, and submitted to the Galveston Bay Council for approval in April. The Council approved projects listed in this work plan at the April 19, 2011 quarterly meeting.

Project Name	FY 2012 Request	FY 2013 Update	Status
Administration (Salaries)	\$533,675	\$532,516	
ADMIN TOTAL	\$533,675	\$532,516	
<i>No Federally Funded NRU Projects</i>	<i>\$0</i>	<i>\$0</i>	<i>No change</i>
NRU TOTAL	\$0	\$0	
1. Galveston and Brazoria County Storm Water Quality Improvement	\$139,325	\$250,325	Funding redirected from Ecosystem Valuation and Status and Trends
WSQ TOTAL	\$139,325	\$250,325	
2. GB Public Awareness Campaign	\$200,000	\$241,143	Funding redirected from Status and Trends
3. Tenth State of the Bay Symposium GB Drive and Discover Guide Reprint	\$20,000	\$20,000	Event shifted to 2014, funding redirected to Drive and Discover Guides
4. Trash Bash 2012	\$1,500	\$17,100	Funding redirected from Status and Trends
5. Estuary Program Website	\$1,500	\$1,516	Annual
PPE TOTAL	\$223,000	\$279,759	
Ecosystem Valuation RFGA	\$100,000	\$0	Cancelled
6. Evaluating the Variability of Sediment and Nutrient Concentrations and Loads from Freshwater Inflows into Galveston Bay	\$135,000	\$135,000	No Change
Status and Trends	\$65,000	\$0	Cancelled
M&R TOTAL	\$300,000	135,000	
FY12 GRANT TOTAL		\$1,197,600	

SECTION 5: FY 2012 PROJECTS
SECTION 5.2: FY 2012 FEDERAL PROJECT DESCRIPTIONS

5.2A - NRU Projects for FY 2012

No Federally Funded NRU Projects

5.2B - WSQ Projects for FY 2012

1. Galveston and Brazoria County Storm Water Quality Improvement

CCMP Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5 PPE-1,3,5,7

SAP Objectives: WSQ Goal 1 Objective A and C; Habitat Protection Goal 2 Objective B

Lead: TX AgriLife Extension

FY12 Budget: \$250,325

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

5.2C - PPE Projects for FY 2012

2. Galveston Bay Public Awareness and Education Campaign

CCMP Actions Implemented: All

SAP Objectives: Public Stewardship Goal 1, Obj. A, B; Public Awareness Goal 1, Obj. A, B, C, and Goal 2, Obj. A, B; Public Education Goal 1, Obj. B; and Goal 2, Obj. A, B

Lead: EnviroMedia Social Marketing

FY 12 Budget: \$241,143

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

3. Galveston Bay Drive & Discover Guide

CCMP Actions Implemented: PPE-3

SAP Objectives: PPE (Public Stewardship – Goal 1, Objective B; Public Education - Goal 1, Objective B)

Lead: Houston-Galveston Area Council

FY 12 Budget: \$20,000

Milestones: Upon approval thru 8/31/13

Description: The *Galveston Bay Drive & Discover* guide is an important education and outreach resource aimed at increasing awareness and appreciation of Galveston Bay resources. The guide serves to introduce area residents and visitors to the cultural, historical, and environmental significance of the bay to this region. The guide is divided into eight sections, or regions (approximating watersheds), and it features 77 sites with a brief description and driving directions. Each section of the guide contains a map with a synopsis of several key habitats found within that section. Artwork and photography of unique images associated with each site is also featured in the guide. All sites identified within the guide are accessible by automobile and are sequentially arranged so that drivers can easily travel from one site to the next. The sites are divided into sections so that users can choose to drive from one site at a time or make the entire Galveston Bay “loop” in a day.

Status: Project is an amendment to the State of the Bay Symposium project that has been postponed to a future date that has not yet been determined. Tasks and funds have been redirected from the Symposium to producing the guide.

Outputs/Products: Final report including a copy of the guide, press release, number of guides distributed.

Outcomes:

Short-term: Produce an updated guide, specifically tailoring the guide's design to match the creative design of the *Back the Bay* campaign. In addition, an interactive Webpage will be created and linked to the *Back the Bay* Website for the public to easily access.

Intermediate: Identify target audiences and distribution outlets for the guide.

Long Term: Increase public awareness and stewardship of Galveston Bay resources. Increased knowledge of activities citizens can do at home to help conserve habitat, save water, and protect water quality.

Pressures (+/-): The guide is one of the most successful publications for GBEP, and has been out of print and unavailable for a year.

4. Trash Bash 2012

CCMP Actions Implemented: PPE-3, 5

SAP Objectives: PPE (Public Stewardship – Goal 1, Objective B; Public Awareness - Goal 2, Objective B; Public Education - Goal 1, Objective B)

Lead: Houston-Galveston Area Council

FY 12 Budget: \$1,500

Milestones: Upon approval thru 8/31/12

Description: Trash Bash is a successful volunteer-based litter cleanup event that has been held at multiple sites in the Houston-Galveston area on an annual basis since 1994. The mission of Trash Bash is to "promote environmental stewardship of our watershed through public education by utilizing hands-on educational tools and by developing partnerships between environmental, governmental and private organizations." This grant's funds help promote and implement the Trash Bash 2010 by paying for items such as, but not limited to, printing and postage of promotional materials and for acquiring supplies for the participating sites.

Status: Project has been funded at various levels since its inception.

Outputs/Products: Final report including a copy of the press release, media advisory, a paid advertisement, number of trash bash sites, number of volunteers and hours, number of exhibitors, number of partners organizing the event, number of save-the-date cards mailed to potential participants, and a survey.

Outcomes

Short-term: Increase number of new participants by 10%; increase pounds of trash collected by 1%; increase pounds of materials recycled by 10%; increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at one Trash Bash location (Mason Park); increase news coverage of the Trash Bash event and the harmful environmental impacts of littering on our area waterways by 10%; increase the dollar value of free publicity from the news coverage by 10%.

Intermediate: Increase awareness of behavior changes associated with litter prevention in a neighborhood located next to Mason Park.

Long Term: Increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at all Trash Bash locations (Mason Park). Decrease the amount of trash flowing into area waterways through educating citizens on appropriate behavior changes i.e. do not litter in your neighborhood, along the roads, etc.

Pressures (+/-): Continued increase in the amount of trash flowing into area waterways from influxes in populations not familiar with the harmful environmental impacts of littering and disconnection with community pride associated with litter-free neighborhoods.

5. Galveston Bay Estuary Program Web site

CCMP Actions Implemented: all, as this is a support project

SAP Objectives: All, as this is a support project

Lead: The Wilkins Group (current vendor) or another vendor

FY12 Budget: \$1,500

Milestones: Annual

Description: Continuation of funding for GBEP Web site hosting and Web statistics.

Status: Project has been funded since FY 2003; Wilkins has been the vendor during this period.

Outputs/Products: Continued maintenance of the Estuary Program Web site.

Outcomes

Short-term: Increase updates to Web site; Increase Web site hits and length of time users spend on the site; survey frequent users of the site to gauge interest in content and Web site improvements.

Intermediate: Increase the Estuary Program's Web site search engine capabilities.

Long Term: Revise Web site for user-friendly capabilities—both internal and external—and keep pace with latest trends in Web site development i.e. integrating the use of social media such as blogging and networking sites

Pressures (+/-): Increased funding for Web redesign; lack of ease to navigate through Web site; lack of search capabilities within Web site to find specific information.

5.2D - M&R Projects for FY 2012

6. Evaluating the Variability of Sediment and Nutrient Concentrations and Loads from Freshwater Inflows into Galveston Bay

CCMP Actions Implemented: FW-1 Complete studies to determine freshwater inflow needs; FW-4 Establish inflow regulations to protect the ecological needs; WSQ-6 Reduce Nutrient and BOD Loadings to Problem Areas; RSC-2 Identified Research Need; RSC-4 Increased Funding for GB Research; Monitoring Program

SAP Objectives: M&R – Goal 1, Increase Understanding; Obj. A – Collaborate with research institutions & B – Support dissemination of monitoring and research; M&R – Goal 2, Make available information to the public, council, and council subcommittees, Obj. A – Obtain analyze and synthesize data of parameters effecting the bay, B – Obtain analyze and synthesize stressor data, C – Support applied research and monitoring that is needed by the NRU. Sustaining Species Populations Goal 1, Sustain and restore native species populations Obj. D – Support research identifying habitat and environmental needs of declining species.

Lead: United States Geologic Survey

FY12 Budget: \$135,000

Milestones: Upon approval thru 08/31/2013

Description: This study would evaluate the variability of nutrient and sediment concentrations and loads entering Galveston Bay during a variety of flow conditions from freshwater inflows, including the Trinity River, San Jacinto River, and Buffalo Bayou. Crews will collect samples at locations near the entrance into Galveston Bay. Samples will be collected for nutrients (total and fractions of Nitrogen and Phosphorus), and sediment (total suspended and size fractionation) concentration using USGS methods for an equal discharge increment. Discharge measurements will also be collected at the time of sampling. Samples will be collected over a period of time to adequately characterize the stream flow entering Galveston Bay with particular emphasis on high-flow conditions.

Status: New project for FY 2012. This was highlighted as a data gap by the M&R based on inflow work being carried out by TAMUG and TAMU since 2005.

Outputs/Products: Final report

Outcomes

Short-term: Nutrient and Sediment Data for 90% of the inflows to Galveston Bay.

Intermediate: Use of data by TAMU inflow research and by the Bay and Basin Expert Science Team for future recommendations on Galveston Bay environmental flows.

Long Term: Protected Galveston Bay environmental flows

Pressures (+/-): Decreased pressure to allocate all fresh water to human consumption.

SECTION 5: FY 2012 PROJECTS
SECTION 5.3: FY 2012 STATE-FUNDED PROJECTS

The projects outlined in this work plan were developed by the Natural Resource Uses Subcommittee, Water and Sediment Quality Subcommittee, Monitoring Subcommittee, Public Participation and Education Subcommittee, and the Monitoring and Research Subcommittees, ranked by the Budget and Priorities Subcommittee, and submitted to the Galveston Bay Council for approval in April. The Council approved projects listed in this work plan at the April 19, 2011 quarterly meeting.

FY 2012 State Projects			
Project Name	FY 2012 Request	FY 2013 Update	Status
1. Virginia Point Shoreline Protection and Restoration	\$100,000	\$100,000	No Change
2. Settegast Coastal Heritage Preserve	\$90,000	\$90,000	No Change
3. Dickinson Bay Bird Island II	\$100,000	\$100,000	No Change
4. Shipe Woods Shoreline Protection and Restoration	\$25,000	\$25,000	No Change
NRU TOTAL	\$315,000	\$315,000	
5. Cedar Bayou Watershed Protection Plan	\$0	92,192	Additional State Funds Received
6. Galveston and Brazoria County Storm Water Quality Improvement	\$0	36,175	Additional State Funds Received
WSQ TOTAL	\$0	\$128,367	
<i>No State Funded PPE Projects</i>	<i>\$0</i>	<i>\$0</i>	<i>No Change</i>
PPE TOTAL	\$0	\$0	
<i>No State Funded M&R Projects</i>	<i>\$0</i>	<i>\$0</i>	<i>No Change</i>
M&R TOTAL	\$0	\$0	
FY 12 STATE PROJECT TOTAL		\$443,367	

SECTION 5: FY 2012 PROJECTS
SECTION 5.4: FY 2012 STATE-FUNDED PROJECT DESCRIPTIONS

State-Funded NRU Projects for FY 2012

\$315,000

1. Virginia Point Protection and Restoration Project

CCMP Actions Implemented: HP-1, HP-9, SP-1, NPS-2, PPE-1, PPE-5

SAP Objectives: *Habitat Protection Goal 2 Obj. A & B; Public Stewardship Goal 1 Obj. 3; Public Education Goal 1 Obj. B*

Project Lead: Texas General Land Office

Project Partners: USFWS Texas Coastal Program, Texas Parks and Wildlife Department, Texas General Land Office, Galveston Bay Foundation

FY12 Budget: \$100,000

Project Total: \$2,500,000

Milestones: upon signature to 08/31/2014

Description: This project will protect the rich and diverse habitats within the 1500 acre Virginia Point Preserve from immediate, direct loss due to erosion, and potential future degradation due to subsequent saltwater intrusion. As originally proposed, the project would protect much of the approximately 2 miles of exposed shoreline. However, since only \$1 million of the \$2 million requested was awarded to the project, partners will need to break the project into multiple phases. This project represents the first phase, and will address erosion along as much of the shoreline as the budget allows, depending on the final design and additional partner contributions.

Status: Received \$1,000,000 in the 2008 cycle of the Coastal Impact Assistance Program; funding expected in late 2011. Potential funds from Coastal Erosion Planning and Response Act (CEPRA) are currently being investigated. Project will be designed to be scalable to account for current level of funding (\$1,100,000).

Outputs/Products: Final Report

Outcomes

Short-term: Engineering and design plan for erosion project, and securing external funding for all or part of project.

Intermediate: Placement of erosion protection along shoreline as final budget allows.

Long Term: Protection of entire Virginia Point shoreline.

Pressures (+/-): Decreasing wetland and coastal habitat loss from erosion.

2. Settegast Coastal Heritage Preserve

SAP Objectives: *Habitat Protection Goal 1 Objectives A and B; Expanding Partnerships Goal 1, Objectives A and B; Fostering Implementation*

CCMP Actions Implemented: HP-1, HP-5, SP-1, SM-5, PPE-7

Project Lead: Texas Parks and Wildlife Department

Partners: USFWS Texas Coastal Program, The Artist Boat, Texas General Land Office, Galveston Bay Foundation, Cabeza de Vaca, Texas General Land Office (CIAP), National Oceanic and Atmospheric Association (CELCP), US Fish and Wildlife Service (CWPPRA)

FY12 Budget: \$90,000

Project Total: \$10,000,000...\$1.44 million (CWPPRA)

Milestones: upon signature to 08/31/2014

Description: The overall project aims to protect more than 300 acres at this location. Currently confirmed partners include the Coastal Impact Assistance Program (approx. \$3,460,000), and a \$3,000,000 land donation from the owners (Marquette). A pending partner in the project is the Coastal Estuarine Land Conservation

Program (awaiting Congressional appropriation levels). Additional requests are planned to NAWCA, the USFWS Coastal Program, and private funders.

The Settegast Coastal Heritage Preserve project area is one of the largest unfragmented, single-owner, undeveloped properties of its kind on Galveston Island, and is part of the West Bay Corridor Initiative. The project area was also identified as a high priority for conservation in the West Galveston Island Greenprint.

The project area represents the essence of bay coastal margin on Galveston Bay, with a full suite of habitats, from open bay water to salt, brackish, intermediate and fresh marsh, tidal flats, and upland prairie. Its habitat value to wildlife is demonstrated by the more than 30 avian species of conservation concern that have been observed at the site and the value of its estuarine marshes as Essential Fish Habitat for marine species. Additionally, it will provide a launching platform for public access and education on coastal resource values.

Approximately 30-35 acres would be purchased with CWPPRA funding. NRU funding would provide the needed cash match to achieve a significantly better score in the re-submission of the CWPPRA application.

Status: Received \$3,460,000 in the 2009-10 cycle of the Coastal Impact Assistance Program (CIAP). Awarded \$1,000,000 in the 2011 cycle of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

Outputs/Products: Final Report

Outcomes

Short-term: Conservation Acquisition Plan for Settegast Coastal Heritage Preserve

Intermediate: Acquisition of ~300 acres of important coastal wetlands on Follets Island

Long Term: The protection of ~300 acres of barrier island habitat and preservation of important hydrologic and water quality functions surrounding the West Bay Conservation Corridor;

Pressures (+/-): Decreasing pressure on Galveston Island due to increased protection of wetlands from development.

3. Dickinson Bay Island (II) Restoration

SAP Objectives: *Habitat Protection Goal 2 Objectives A and B; Public Stewardship Goal 1 Objective 3; Public Education Goal 1, Objective B; Fostering Implementation*

CCMP Actions Implemented: HP-1, HP-9, SP-1, NPS-2, PPE-1, PPE-5

Project Lead: Galveston Bay Foundation

Partners: USFWS Texas Coastal Program, Texas Parks and Wildlife Department

FY12 Budget: \$100,000

Project Total: \$1,100,000

Milestones: upon signature to 08/31/2013

Description: The Dickinson Bay Island (II) Restoration project is designed to continue the effort to replace three critical islands in Dickinson Bay that have eroded over the past six decades. The first island was constructed in 2007, and consists of a 5-acre, horseshoe-shaped clay island protected with rip-rap with marsh mounds in the interior plus a 2-acre oyster reef adjacent to the island. The current project proposes the construction of the second island. The proposed 4.59-acre island will provide critical colonial waterbird roosting/nesting habitat and restore oyster reefs in Dickinson Bay. The island will be constructed of clean clay, sculpted to prescribed slopes and elevations, and protected with rip-rap around three sides of its perimeter. The island will be sloped into the tidal zone on the open end to provide access for colonial waterbirds. A cap of selected cultch material will be deployed over the clay to provide nesting habitat for colonial waterbirds. Additionally, selected cultch material will be deployed on a 2-acre area adjacent to the island to enhance oyster reefs in the area. The construction of this project in Dickinson Bay will create much needed habitat for colonial waterbird nesting, increase oyster reef habitat, improve water quality in an impaired water body,

enhance recreational fishing opportunities to the general public, and provide erosion protection for The Nature Conservancy's Texas City Prairie Preserve, one of the few remaining homes and breeding grounds for the endangered Attwater's prairie chicken.

Status: New project

Outputs/Products: Final Report

Outcomes

Short-term: Engineering and design plan for rookery island; securing external funding for all or part of project.

Intermediate: Construction of a 4.59 acre bird island and 2 acres of oyster reef

Long Term: Increased habitat for colonial waterbirds and oysters in Dickinson Bay

Pressures (+/-): Decreased pressure on existing habitat for colonial waterbirds.

4. Shipe Woods Shoreline Stabilization and Habitat Creation

SAP Objectives: *Habitat Protection Goal 2 Objectives A and B; Public Stewardship Goal 1 Objective 3; Public Education Goal 1, Objective B; Fostering Implementation*

Plan Actions Implemented: HP-1, HP-9, SP-1, NPS-2, PPE-1, PPE-5

Project Lead: Galveston Bay Foundation

Partners: USFWS Texas Coastal Program, NOAA-Restore America's Estuaries (RAE)

FY12 Budget: \$25,000

Project Total: \$60,000

Milestones: upon signature to 08/31/2013

Description: This project will create up to 700 linear feet of rock breakwater to protect a 15-acre wooded conservation property adjacent to Trinity Bay in Chambers County. In the past 15 years, an estimated 100 feet of shoreline has eroded at this site, severely impacting the riparian forest. Currently, trees are falling off a 3' bluff into the bay as the soil erodes from underneath them. The proposed breakwater will reduce the wave energy to slow erosion and allow tidal wetlands to establish along the shoreline. Behind the breakwater (shoreward), native marsh vegetation will be planted with Marsh Mania volunteers to augment the shoreline stabilization process and restore intertidal marsh habitat. Ideally, we would grade the current bluff to a more natural slope to encourage a full-spectrum marsh ecosystem from the intertidal zone low marsh to the high marsh. Grading the shoreline will be dependent on the amount of funding received for this project and the final cost of breakwater construction.

Breakwater construction will mimic previously completed projects along East Bay. The construction will be land based and staff will consult heavily with contractors during the planning phase. GBF will raise additional funding to complete this project as needed.

Status: New project

Outputs/Products: Final Report

Outcomes

Short-term: Engineering and design plan for erosion project; securing external funding for all or part of project.

Intermediate: The placement of 700 feet of rock breakwater at Shipe Woods (Trinity Bay).

Long Term: Protection of 15 acres of wooded habitat from erosion on Trinity Bay

Pressures (+/-): Decreased pressure on habitat loss from erosion.

5. Cedar Bayou Watershed Protection Plan

SAP Objectives: WSQ Goal 1 Reduce NPS Obj. A – Support the Development and Implementation of WPPs and TMDL I-Plans; WSQ Goal 1: Reduce NPS Obj. C – Development and Implementation of Structural and Non-

FY 2013 Annual Work Plan

Galveston Bay Estuary Program

Structural BMPs; Habitat Protection Goal 2: Restore and Enhance Coastal Habitats in the Lower Galveston Bay Watershed Obj. B – Restore and Enhance 5,000 acres; Expanding Partnerships Goal 1 Obj. A, B, and C – Increase Participation of Local Governments.

Plan Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6, 10,11, 12,13,14; PS-1,2,5 PPE-1,3,5,7

Project Lead: Houston-Galveston Area Council

FY12 Budget: \$90,000

Project Total: \$1,157,856.00 (\$1,027,856.00 leveraged)

Milestones: Upon Signature to 1/31/2014

Description: The Watershed Protection Planning in Cedar Bayou Watershed will address the current water quality problems of bacteria as well as lay the groundwork for future water quality protection before a TMDL is required for the watershed. The proposed project merits consideration for funding due to its approach of working with local stakeholders to develop a Cedar Bayou Watershed Protection Partnership. The Partnership will drive the water quality impairment source identification and management measure efforts; giving the stakeholders ownership in the process and encouraging future participation for Watershed Protection Plan implementation. The proposed project represents a proactive approach to water quality improvement; stakeholder involvement and development of a Watershed Protection Plan before impairments become too great, will aid in maintaining water quality in the watershed. The project will help to restore a 303(d) listed segment by identifying sources and developing an initial list of NPS management measures.

H-GAC will provide project administration and coordination, and be responsible for developing a water quality monitoring plan, partner-approved QAPP and data analysis including development of load duration curves and modeling efforts. Deliverables will include a completed Cedar Bayou Watershed Protection Plan that satisfies EPA's nine key element requirements and includes stakeholder involvement in the development. H-GAC applied for and received funding through the TSSWCB Clean Water Act 319 NPS Grant Program, which has a 60/40 non-federal match requirement. \$90,000 from the Galveston Bay Estuary Program over the three-year funding period will be used as match to the project.

Status: Contract Development

Outputs/Products: Watershed Protection Plan

Outcomes

Short-term: Watershed Protection Plan

Intermediate: Implementation Begins

Long Term: Improved Water Quality leading to de-listing.

Pressures (+/-): The watershed, while still mostly rural, will see increased population growth over the next 20 to 30 years. That pressure may make it difficult to implement measures to improve the water body and de-list it for bacteria. Increased participation by municipalities and regional governments could benefit long range planning so that future practices will have a net improvement in the watershed.

6. Galveston and Brazoria County Storm Water Quality Improvement

CCMP Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5 PPE-1,3,5,7

SAP Objectives: WSQ Goal 1 Objective A and C; Habitat Protection Goal 2 Objective B

Lead: TX AgriLife Extension

FY12 Budget: \$36,175

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

SECTION 6: FY 2012 GRANT BUDGET SPREADSHEET

Grant Roll Up (All Divisions/FYs)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY																																																												
(a) Grant Title:		FY11 GALVESTON BAY ESTUARY PROGRAM																																																										
(b) USAS Grant #:		900519 (Revision: 2.2)																																																										
(c) FY(s):		2012, 2011																																																										
(d) As of Date:		05/02/2012																																																										
(e) Fringe Benefit and Indirect Cost Rates																																																												
FY	Fringe Benefit Rate	Indirect Cost Rate																																																										
2012	27.27%	28.02%																																																										
2011	25.66%	32.89%																																																										
			<table border="1"> <thead> <tr> <th colspan="6">FEDERAL</th> <th colspan="6">STATE</th> </tr> <tr> <td>(f) Fed. Match %:</td> <td>50</td> <td>(g) Fed. Match (\$):</td> <td>Total:</td> <td>Direct:</td> <td>External:</td> <td>(h) State Match %:</td> <td>50</td> <td>(i) State Match (\$):</td> <td>Total:</td> <td>Direct:</td> <td>Indirect:</td> <td>External:</td> </tr> <tr> <td></td> <td></td> <td></td> <td>\$1,398,800.00</td> <td>\$1,398,800.00</td> <td>\$0.00</td> <td></td> <td></td> <td>\$1,398,800.00</td> <td>\$1,398,800.00</td> <td>\$0.00</td> <td>\$0.00</td> <td>\$0.00</td> </tr> <tr> <td colspan="3"></td> <td colspan="10">(j) Agency Fund(s): 1535, 0015</td> </tr> </thead></table>							FEDERAL						STATE						(f) Fed. Match %:	50	(g) Fed. Match (\$):	Total:	Direct:	External:	(h) State Match %:	50	(i) State Match (\$):	Total:	Direct:	Indirect:	External:				\$1,398,800.00	\$1,398,800.00	\$0.00			\$1,398,800.00	\$1,398,800.00	\$0.00	\$0.00	\$0.00				(j) Agency Fund(s): 1535, 0015									
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			(j) Agency Fund(s): 1535, 0015																																																									
(k) Grant Roll Up			(p) Expense Items																																																									
(l) Grantor Goal / (m) Strat / (n) PE Name			(o)	(q)						(r)																																																		
WY			1-Salaries	2-Contracts	3-Travel	4-Other	5-Supplies	6-Equip	7-Const.	Subtotal	FB	IC	Grand Total																																															
GOAL 2010102/ADMINISTRATION			673,694.38	0.00	2,000.00	1,000.00	0.00	0.00	0.00	676,694.38	178,352.36	204,994.72	1,060,041.46																																															
GOAL 2010102/MONITORING AND RESEARCH			0.00	0.00	0.00	347,720.36	0.00	0.00	0.00	347,720.36	0.00	0.00	347,720.36																																															
GOAL 2010102/NATURAL RESOURCE USES			0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	100,000.00	0.00	0.00	100,000.00																																															
GOAL 2010102/PUBLIC PART EDUCATION			0.00	380,280.00	0.00	260,280.00	0.00	0.00	0.00	640,560.00	0.00	0.00	640,560.00																																															
GOAL 2010102/WATER AND SEDIMENT QUALITY			0.00	0.00	0.00	649,269.18	0.00	0.00	0.00	649,269.18	0.00	0.00	649,269.18																																															
(s) Total Costs:			\$673,694.38	\$380,280.00	\$2,000.00	\$1,358,278.54	\$0.00	\$0.00	\$0.00	\$2,414,252.92	\$178,352.36	\$204,994.72	\$2,797,600.00																																															
(t) Notes/Comments:																																																												

NOTE: Amounts not rounded

SECTION 7: FY 2011 PROJECTS
SECTION 7.1: FY 2011 FEDERAL PROJECTS BY PROGRAM ELEMENT

The projects outlined in this work plan were developed by the Natural Resource Uses Subcommittee, Water and Sediment Quality Subcommittee, Monitoring Subcommittee, Public Participation and Education Subcommittee, and the Monitoring and Research Subcommittees, ranked by the Budget and Priorities Subcommittee, and submitted to the Galveston Bay Council for approval in April. The Council approved projects listed in this work plan at the April 28, 2010 quarterly meeting.

Project Name	FY 2012 Update	FY 2013 Update	Status
Administration (Salaries)	\$625,591	\$ 625,609.00	n/a
ADMIN TOTAL		\$ 625,609.00	
1. Follets Island Acquisition	\$100,000	\$ 100,000.00	No Change
2. Conservation Assistance Program RFGA	\$100,000	\$ 175,000.00	Funding redirected from No Net Loss Study
NRU TOTAL		\$ 275,000.00	
3. Galveston and Brazoria County Storm Water Quality Improvement	\$200,000	\$ 200,000.00	No Change
4. Armand Bayou Watershed Improvement	\$180,784	\$ 180,784.00	No Change
WSQ TOTAL		\$ 380,784.00	
5. Galveston Bay Public Awareness Campaign	\$273,456	\$ 273,439.00	No Change
6. Estuary Program Website	\$1,516	\$ 1,516.00	No Change
7. Bay Day 2011	\$33,500	\$ 33,500.00	No Change
8. Trash Bash 2011	\$1,500	\$ 1,500.00	No Change
9. State of the Bay Symposium	\$30,000	\$ 30,000.00	No Change
PPE TOTAL		\$ 339,955.00	
"No Net Loss" of Wetlands	\$75,000	\$ -	Cancelled
10. Bio-indicators of Freshwater Inflow	\$100,000	\$ 100,000.00	No Change
11. State of the Bay Bibliography	\$25,000	\$ 25,000.00	No Change
M&R TOTAL		\$ 125,000.00	
FUNDING REQUEST GRANT TOTAL	\$ 1,746,348.00		

***FY11 Grant was \$1,600,000. Additional amounts from the FY04-07 (\$134,319) and FY08-10 (\$12,029) were rematched and added to this year's operating budget.*

SECTION 7: FY 2011 PROJECTS
SECTION 7.2: FY 2011 FEDERAL PROJECT DESCRIPTIONS

7.2A - NRU Projects for FY 2011

1. Follets Island Habitat Conservation Project

CCMP Actions Implemented: HP-1, HP-5, SP-1, SM-5, PPE-1

SAP Objectives: *Habitat Protection Goal 1 Objectives A and B; Public Stewardship Goal 1 Objective 3; Public Education Goal 1, Objective B; Fostering Implementation*

Lead: Texas Parks and Wildlife Department

FY11 Budget: \$100,000

Milestones: upon signature to 8/31/2012

Description: The Follets Island Conservation Initiative will acquire and conserve in perpetuity approximately 500 acres of coastal barrier habitat (coastal prairie, palustrine and estuarine wetlands, and beach and dune habitats) on Follets Island. The acquisition of the 500 acres of coastal barrier habitat would enhance the value of a 485-acre tract of coastal barrier habitat already under state ownership. Efforts to purchase tracts so that the 500 acres of acquired land will be contiguous with each other and contiguous with the 485-acre in-kind tract will be a top priority.

Status: Selected for CIAP funding in FY 2008 cycle

Outputs/Products: Final Report

Outcomes

Short-term: Conservation Acquisition Plan for Follets Island

Intermediate: Acquisition of 500 acres of important coastal wetlands on Follets Island

Long Term: The protection of 985 acres of barrier island habitat and preservation of important hydrologic and water quality functions surrounding the Christmas Bay coastal preserve complex;

Pressures (+/-): Decreasing pressure on Christmas Bay due to increased protection of wetlands from development.

2. Conservation Assistance Program RFGA

CCMP Actions Implemented: HP-1, HP-5, SP-1, SM-5, PPE-1

SAP Objectives: *Habitat Protection Goal 1 Objectives A and B; Public Stewardship Goal 1 Objective 3; Public Education Goal 1, Objective B; Fostering Implementation*

Lead: To be competitively bid

FY11 Budget: \$175,000

Milestones: upon signature to 08/31/2014

See FY 2013 for Details

7.2B - WSQ Projects for FY 2011

3. Galveston and Brazoria County Storm Water Quality Improvement

CCMP Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5 PPE-1,3,5,7

SAP Objectives: WSQ Goal 1 Objective A and C; Habitat Protection Goal 2 Objective B

Lead: TX AgriLife Extension

FY11 Budget: \$200,000

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

4. Armand Bayou Watershed Improvement

CCMP Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5 PPE-1,3,5,7

SAP Objectives: WSQ Goal 1 Objective A and C; Habitat Protection Goal 2 Objective B

Lead: University of Houston at Clear Lake
FY11 Budget: \$180,784
Milestones: upon signature to 08/31/2013

Description: The goal of this project will be to improve overall water quality and reduce nutrient and bacterial contamination in the urbanized Armand Bayou watershed by implementing and evaluating an on-the-ground water quality implementation project (WQIP). Armand Bayou and its tributaries are currently listed as impaired due to elevated levels of bacteria and suppressed levels of dissolved oxygen.

The WQIP will be a storm water treatment wetland on property owned by the University of Houston-Clear Lake (UHCL) to improve the quality of runoff entering the Armand Bayou Watershed. Storm water runoff from approximately 17.4 acres of university property including heavily used parking lots, roads and university buildings will be routed through a newly constructed wetland adjacent to Horsepen Bayou, an impaired tributary to Armand Bayou. In addition, during dry weather, a small portion of water from Horsepen Bayou will be routed via a solar pump through the wetland to maintain emergent wetland areas and to treat ambient levels of bacteria prior to returning to the bayou.

GBEP implements *the Galveston Bay Plan*, a comprehensive conservation management plan, which states that addressing non-point source pollution is the 2nd highest priority problem facing resource managers in the Galveston Bay watershed. The GBEP will benefit directly from the results of this grant, which include increasing the amount of local data showing BMP effectiveness in improving water quality relative to cost of construction, and improving public understanding of regional water quality issues and support for large-scale water quality improvement projects. In addition, the results will be used to improve future implementation projects in the watershed and around the region and to report on our ability to improve water quality in impaired water bodies, a key programmatic performance measure.

Status: This project has been ongoing since 2010. The \$180,784 fully funds this project through FY 2013. UHCL has completed a Quality Assurance Project Plan; selected a subcontractor to complete design and engineering, construction, and planting of the wetland; and initiated monitoring of the wetland following approval of the QAPP.

Outputs/Products: Final Report

Outcomes

Short-term: Complete a 3.5 acre stormwater wetland to treat run-off from 17.4 acres of the university.

Intermediate: A fully monitored WQIP that will provide valuable data on the use of stormwater wetlands in the lower Galveston Bay watershed. Determine the feasibility and value of solar pump treatment of impaired waterbodies where an offline wetland might be required due to a lack of adjacent space.

Long Term: Results used to improve and expand use of stormwater treatment wetlands in applicable areas.

Pressures (+/-): The lack of effectiveness data has been used by government and non-government stakeholders as a reason for not encouraging the use of stormwater wetlands and other WQIP concepts even while it has been demonstrated in other parts of the country.

7.2C - PPE Projects for FY 2011

5. Galveston Bay Public Awareness and Education Campaign

CCMP Actions Implemented: All

SAP Objectives: Public Stewardship Goal 1, Obj. A, B; Public Awareness Goal 1, Obj. A, B, C, and Goal 2, Obj. A, B; Public Education Goal 1, Obj. B; and Goal 2, Obj. A, B

Lead: EnviroMedia Social Marketing

FY 11 Budget: \$ 273,439

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

6. Galveston Bay Estuary Program Web site

CCMP Actions Implemented: all, as this is a support project

SAP Objectives: All, as this is a support project

Lead: The Wilkins Group (current vendor) or another vendor

FY11 Budget: \$1,516

Milestones: Annual

See FY 2013 for Details

7. Bay Day 2011

CCMP Actions Implemented: PPE-3, 5

SAP Objectives: PPE (Public Awareness - Goal 2, Objective B; Public Education - Goal 1, Objective A and B)

Lead: Galveston Bay Foundation

FY 11 Budget: \$33,500

Milestones: Upon approval thru 8/31/11

Description: The Estuary Program supports the Galveston Bay Foundation (GBF) promotion and hosting of Bay Day 2010. Bay Day is a one-day celebration presented by GBF and other contributors. It is a signature education event providing exposure to Galveston Bay for many area residents. Highlights of the day include hands-on, interactive exhibits, a scavenger hunt, and live entertainment.

Status: Project has been funded at various levels since its inception.

Outputs/Products: Final report

Outcomes

Short-term: Increase number of new participants—exhibitors, volunteers, attendees and partnerships—by 10%; increase the return rate of previous year's volunteers; increase awareness level of the benefits of Galveston Bay and efforts citizens can do at home to protect the bay; increase news coverage of the event and efforts citizens can do at home to protect the bay 10%; increase the dollar value of free publicity from the news coverage by 10%.

Intermediate: Increase awareness of behavior changes associated with protection of the bay.

Long Term: Increase awareness level of the positive behavior changes citizens can do at home to protect the bay by 10%.

Pressures (+/-): Increase positive behavior changes among targeted audiences associated with sustaining Galveston Bay.

8. Trash Bash 2011

CCMP Actions Implemented: PPE-3, 5

SAP Objectives: PPE (Public Stewardship – Goal 1, Objective B; Public Awareness - Goal 2, Objective B; Public Education - Goal 1, Objective B)

Lead: Houston-Galveston Area Council

FY 11 Budget: \$1,500

Milestones: Upon approval thru 8/31/11

Description: Trash Bash is a successful volunteer-based litter cleanup event that has been held at multiple sites in the Houston-Galveston area on an annual basis since 1994. The mission of Trash Bash is to "promote environmental stewardship of our watershed through public education by utilizing hands-on educational tools and by developing partnerships between environmental, governmental and private organizations." This

grant's funds help promote and implement the Trash Bash 2010 by paying for items such as, but not limited to, printing and postage of promotional materials and for acquiring supplies for the participating sites.

Status: Project has been funded at various levels since its inception.

Outputs/Products: Final report

Outcomes

Short-term: Increase number of new participants by 10%; increase pounds of trash collected by 1%; increase pounds of materials recycled by 10%; increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at one Trash Bash location (Mason Park); increase news coverage of the Trash Bash event and the harmful environmental impacts of littering on our area waterways by 10%; increase the dollar value of free publicity from the news coverage by 10%.

Intermediate: Increase awareness of behavior changes associated with litter prevention in a neighborhood located next to Mason Park.

Long Term: Increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at all Trash Bash locations (Mason Park). Decrease the amount of trash flowing into area waterways through educating citizens on appropriate behavior changes i.e. do not litter in your neighborhood, along the roads, etc.

Pressures (+/-): Continued increase in the amount of trash flowing into area waterways from influxes in populations not familiar with the harmful environmental impacts of littering and disconnection with community pride associated with litter-free neighborhoods.

9. Galveston Bay Drive & Discover Guide

CCMP Actions Implemented: PPE-3

SAP Objectives: PPE (Public Stewardship – Goal 1, Objective B; Public Education - Goal 1, Objective B)

Lead: Houston-Galveston Area Council

FY 12 Budget: \$20,000

Milestones: Upon approval thru 8/31/13

See FY 2012 for Details

7.2D - M&R Projects for FY 2011

10. Bio-Indicators for Freshwater Inflows for Galveston Bay: Responding To Challenges from BBEST Recommendations

CCMP Actions Implemented: FW-1, FW-4, RSC-2, RSC-4, Monitoring Program

SAP Objectives: M&R – Goal 1 Obj. A, B; Goal 2, Obj. A, B, C; Sustaining Species Populations Goal 1 Obj. D

Lead: Texas A&M University at Galveston (TAMUG)

FY11 Budget: \$100,000

Milestones: Thru 8/31/2012

Description: Based on one of the recommendations being made by BBEST, funds are being requested to study nutrient and salinity effects on phytoplankton, Atlantic Rangia, and Wild Celery. This project would seek to provide important data on the use of biological indicators to determine the frequency, magnitude, and pulses of inflow needed to sustain Galveston Bay. This project will examine the phytoplankton samples collected in 2006, 2008-2011; develop high spatial and temporal resolution mapping of Galveston Bay water quality parameters; define influence of nutrient and sediment load on the phytoplankton in Galveston Bay; determine the distribution of *Vallisneria* plants in relation to salinity gradients Galveston Bay; determine the distribution of Rangia clams in relation to salinity gradients Galveston Bay; and using the data collected, develop a better understanding of the use of these flora and fauna as biological

indicators of the effects of freshwater inflows in Galveston Bay.

Status: TAMUG is currently being funded by GBEP to continue analyzing phytoplankton samples being collected under funding from the Coastal Management Program. Match to this ongoing effort is over \$200,000 and is providing direct benefit to the development of inflow recommendation under Senate Bill 3.

Outputs/Products: Final Report

Outcomes

Short-term: Increased understanding of the role freshwater inflows on Galveston Bay, particularly response indicator species.

Intermediate: Use of indicator species to develop seasonal, magnitude and pulse event fresh water inflow amounts to ensure beneficial inflow

Long Term: Management of inflow beneficial to maintain the biological integrity of Galveston Bay.

Pressures (+/-): Decreased pressure to allocate all fresh water to human consumption.

11. State of the Bay Bibliography

CCMP Actions Implemented: HP-1 Restore, create, protect wetlands; HP-5 Acquire and protect quality wetlands; HP-6 Develop economic and tax incentive programs to protect wetlands; RSC-2 Identified Research Need; RSC-4 Increased Funding for GB Research; PPE-1 Establish citizen involvement as an integral part of the program; PPE-3 Develop a long-range adult education and outreach program; PPE-7 Develop and implement a strategy for informing, educating, and providing local government involvement.

SAP Objectives: M&R – Goal 1 Increase Understanding Objs. A – Collaborate with research institutions & B – Support dissemination of monitoring and research; M&R – Goal 2 Make available information to the public, council, and council subcommittees, Objs. A – Obtain analyze and synthesize data of parameters effecting the bay, C – Support applied research and monitoring that is needed by the NRU and PPE.

Lead: Houston Advanced Research Center

FY 11 Budget: \$40,000

Milestones: Upon approval thru 11/30/2011

Description: The Galveston Bay Estuary Program is amending the State of the Bay Contract with the GeoTechnology Research Institute of the Houston Advance Research Center to add an additional task to add to the State of the Bay Bibliography by completing a literature review on ecosystem services; analyze case studies on ecosystem service studies; and complete a white paper on the results. The white paper will be used in a workshop of experts in the field of ecosystem services and local stakeholders and decision makers in September 2011. The outcome of the workshop will be a strategy to conduct an ecosystem services pilot study in the Lower Galveston Bay watershed. Deliverables from this workshop will be highlighted and a key theme at the next State of the Bay Symposium scheduled for March 2012. An additional three months is being added to complete this additional task.

The Galveston Bay Estuary Program and its partners have a target of 50,000 acres of wetland and flood plain habitat by 2015. To support this objective, the Galveston Bay Estuary Program and its partners are developing a conservation program that targets key local stakeholders with information on the importance of wetland habitat. One area of wetland habitat information that is currently a data gap is understanding of the full range of ecosystem services and associated value, both market and non-market of wetland and flood plain habitat. 1) This amendment will benefit the program in initiating work to better understand ecosystem values and place those values into terms that key stakeholders will understand to potentially make informed decisions; 2) The ecosystem services strategy developed will form the basis of a future pilot study focused on wetland and habitat conservation; and 3) Results of this amendment will form the subject base at the State of the Bay Symposium in March 2012.

Status: Amendment is currently being signed by both parties.

Outputs/Products: Final report

Outcomes

Short-term: Complete bibliographical search and white paper.

Intermediate: Develop ecosystem services pilot study Request for Grant Application for FY 2012 and use in State of the Bay Symposium in March 2012.

Long Term: Use of information by Estuary Program and stakeholders to increase the public and local decision makers understanding of wetland and flood plain habitat value and ecosystem services.

Pressures (+/-): Population growth and development practices continue to impact the region's wetland and associated habitat resources which degrade local water quality, wildlife and fishery habitat, and economic value of Galveston Bay. Placing the results in the hands of decision makers has the potential to incorporate wetland values in long range planning and encourage increase protection.

SECTION 7: FY 2011 PROJECTS
SECTION 7.3: FY 2011 STATE-FUNDED PROJECTS

The projects outlined in this work plan were developed by the Natural Resource Uses Subcommittee, Water and Sediment Quality Subcommittee, Monitoring Subcommittee, Public Participation and Education Subcommittee, and the Monitoring and Research Subcommittees, ranked by the Budget and Priorities Subcommittee, and submitted to the Galveston Bay Council for approval in April. The Council approved projects listed in this work plan at the April 28, 2010 quarterly meeting.

Project Name	FY 2012 Update	FY 2013 Update	Status
<i>No State-Funded Salaries</i>			No Change
ADMIN TOTAL		\$0	
1. Invasive Species Management	\$80,000	\$80,000	No Change
2. Starvation Gap Protection and Restoration	\$27,214	\$27,214	No Change
3. Lower Galveston Bay Wetland Protection and Restoration	\$250,000	\$250,000	No Change
NRU TOTAL		\$357,214	
4. Galveston and Brazoria County Storm Water Quality Improvement	\$25,000	\$25,000	No Change
WSQ TOTAL		\$25,000	
<i>No State-Funded PPE Projects</i>			No Change
PPE TOTAL		\$0	
5. State of the Bay Bibliography	15,000	15,000	No Change
M&R TOTAL		\$15,000	
FUNDING REQUEST GRANT TOTAL	\$397,214		

SECTION 7: FY 2011 PROJECTS
SECTION 7.4: FY 2011 STATE-FUNDED PROJECT DESCRIPTIONS

State-Funded NRU Projects for FY 2011

1. Invasive Species Management

SAP Objectives: *Habitat Protection Goal 2 Obj. A, B; Species Protection Goal 2 Obj. A, C; Public Education Goal 1 Obj. B*

CCMP Actions Implemented: HP-1, SP-1, SP-10, PPE-1

Project Lead: Galveston Bay Foundation, Armand Bayou Nature Center

FY11 Budget: \$80,000

Milestones: upon signature thru 8/31/2013

Description: The NRU Subcommittee allocates funding each year to the Invasive Species Work Group to secure additional contributions for invasive species management efforts. This project involves invasive species control at several sites within lands under conservation management, addressing four of the highest risk species identified in the Galveston Bay Invasive Species Risk Assessment (TCEQ Contract 582-02-53287) - Brazilian peppertree, Chinese tallow, salt cedar and water hyacinth. GBF and Armand Bayou Nature Center (ABNC) shall employ proven control methods, including herbicide application, prescribed mowing, prescribed burns, or other viable means to complete work identified at each site.

Invasive species are those that establish, successfully reproduce, out-compete, and displace or replace native species. The impacts of invasive species can be ecologically and economically devastating to a region, and the Houston-Galveston metropolitan area, including the Lower Galveston Bay Watershed, is no exception.

During the 2001 review of the priorities and goals established in The Galveston Bay Plan, invasive species were identified as the one of the highest priority problems contributing to habitat loss. In 2004, the Galveston Bay Estuary Program (GBEP), the Houston Advanced Research Center (HARC), and the Environmental Institute of Houston at the University of Houston-Clear Lake (EIH-UHCL) completed an invasive species risk assessment for the Lower Galveston Bay Watershed. The project identified 296 species (including 166 plant species) as current and potential invaders of the Lower Galveston Bay Watershed. Each species was ranked by a group of experts according to ecological risk. The risk assessment also outlined a series of recommendations to enhance prevention and control of invasive species.

Outputs/Products: Final Report

Outcomes

Short-term: Treatment of areas infested with invasive species on selected areas proposed.

Intermediate: Prevent the spread and entrenchment of invasive species within the Galveston Bay watershed, support ongoing water hyacinth management program.

Long Term: Support effective management of high-risk invasive species in Galveston Bay watershed. Prevent severe damage to Armand Bayou ecosystem from water hyacinth.

Pressures (+/-): Decreased damage to natural ecosystems from invasive species.

2. Starvation Gap Protection and Restoration

SAP Objectives: HP-Goal 1 Objective C; Goal 2 Objective B; WSQ Goal 1 Objective C, SP-Goal 1 Objective C; PS-Goal 1 Objective B; PA-Goal 1 Objective B, PE-Goal 1 Objective B; EP-Goal 2 Objectives A, B.

CCMP Actions Implemented: HP-1, 2, 7, 8; SP-1; NPS; PPE-1, 3, 5.

Project Lead: Texas Parks and Wildlife Department

FY11 Budget: \$27,214

Milestones: 2008-08/31/2012

Description: This project involves the installation of approximately 2,400 feet of erosion control structures to protect approximately 23 acres of existing estuarine wetlands in West Bay, along the north shoreline of Galveston Island in West Bay. This project will protect large expanses of rapidly eroding tidal marshes, and restore approximately 50 acres of marshes and shallow open water habitats lost to subsidence and erosion. Partners will also plant seagrasses within protected areas to continue the highly successful effort to re-establish seagrasses as a major component of the West Bay ecosystem. This project will connect two highly successful partnership efforts recently completed at Delehide Cove and Starvation Cove in West Bay, and will involve local community members in planting restored marshes, thereby providing an outstanding opportunity to provide education on the importance of protecting Texas' valuable coastal resources.

Outputs/Products: Final Report

Outcomes

Short-term: Engineering and design plan for restoration project, and securing external funding for all or part of project.

Intermediate: Placement of breakwater and restoration materials at Starvation Gap.

Long Term: Increased estuarine marsh complex in the Galveston Bay Watershed.

Pressures (+/-): Decreased erosion pressure on marshes due to placement of breakwater.

3. Lower Galveston Bay Wetland Protection and Restoration

SAP Objectives: HP-Goal 1 Objective C; Goal 2 Objective B; WSQ Goal 1 Objective C, SP-Goal 1 Objective C; PS-Goal 1 Objective B; PA-Goal 1 Objective B, PE-Goal 1 Objective B; EP-Goal 2 Objectives A, B.

CCMP Actions Implemented: HP-1, 2, 7, 8; SP-1; NPS; PPE-1, 3, 5.

Project Lead: Texas Parks and Wildlife Department

FY11 Budget: \$250,000

Milestones: upon signature – 08/31/13

Description: This project with Texas Parks and Wildlife Department is comprised of two wetland protection and restoration projects in the lower Galveston Bay Watershed. Texas Parks and Wildlife Department is the central project administrator for both projects. TCEQ/Estuary Program funds will serve as seed funds to leverage approximately \$1,949,000 from the USFWS-administered Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program, along with additional state, local, and private sources, for wetland protection and restoration work at Bird Island Cove in West Galveston Bay and along Dickinson Bayou. Approximately 60 acres of vital habitat within the lower Galveston Bay Watershed will be restored.

A. Bird Island Cove Restoration

The Galveston Bay system has lost a net of nearly 35,000 acres of wetlands, and most of its seagrasses, since the 1950s. A significant portion of this wetland loss, and much of this seagrass loss occurred in the West Bay area, due in large part to subsidence and subsequent erosion. Despite these losses, West Bay is considered one of the more pristine component bays within the Galveston Bay system, and consequently, resource managers have concentrated resources to protecting remaining natural areas and restoring lost wetlands and seagrasses.

The Bird Island Cove Restoration Project will involve the installation of approximately 4,400 linear feet of breakwater, the restoration of 52 acres of intertidal marsh complex (salt flat marsh, salt flat, intertidal marsh and protected shallow water), and the protection and enhancement of existing estuarine habitats by hydraulically dredging material from designated nearby borrow area(s). This project serves to close the gap between other successful projects fostered through the Estuary Programs Natural Resource Uses subcommittee including McAllis Point Acquisition, McAllis Point Restoration, Ostermayer Bayou Acquisition, Jumbile Cove Restoration, and the West Bay Stimulus Restoration. Through these projects, the TCEQ/Estuary Program contributed \$842,363 to leverage \$10,088,662 and protect/restore 616 acres along the north shoreline of Galveston Island.

The Bird Island Cove component will significantly enhance the Galveston Bay Estuary Program and partners' wetland protection and restoration work in West Bay, which has received national recognition.

B. Dickinson Bayou Wetland Restoration

The Texas Commission on Environmental Quality's 2008 report on Total Maximum Daily Load (TMDL) for dissolved oxygen (DO) in Dickinson Bayou showed that the anthropogenic changes made to the bottom contours of Dickinson Bayou contribute significantly to the non-attainment of dissolved oxygen (DO) criteria.

The Dickinson Bayou Restoration project involves the placement of approximately 1,777,778 square feet of material to restore natural bottom contours and vegetate 8 to 10 acres of historic marsh habitat in Dickinson Bayou. This project will restore historic bottom contours and the habitats that provide biochemical interactions and improve water quality to the downstream tidal portions of the bayou. The direct benefits of this project will result in improved fish and wildlife habitat, increased productivity of nursery fish and benthic species as well as improved water quality and stormwater filtration in Dickinson Bayou. This project is consistent with three other successful, similarly-constructed restoration efforts in Dickinson Bayou that were completed in 1994 by Texas General Land Office and in 2006 by the Galveston Bay Foundation.

Outputs/Products: Final Report

Outcomes

Short-term: Restoration of 52 acres of intertidal marsh complex in Galveston Bay; Placement of 4,400 LF of breakwater (geotextile tube) in West Bay; and restoration of natural bottom contours and 8 to 10 acres of historic marsh habitat in Dickinson Bayou

Intermediate: Involvement of local citizens in planting protected areas within this project to build awareness of economic and ecological problems associated with erosion and habitat loss, and to educate citizens on the values of wetland and water quality protection.

Long Term: Improvement of water quality and stormwater filtration in Dickinson Bayou, improvement of fish and wildlife habitat, and increased productivity of nursery fish and benthic species

Pressures (+/-):

4. Galveston and Brazoria County Storm Water Quality Improvement

CCMP Actions Implemented: HP-1,2,3,5; SD-5,6,7; WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5 PPE-1,3,5,7

SAP Objectives: WSQ Goal 1 Objective A and C; Habitat Protection Goal 2 Objective B

Lead: TX AgriLife Extension

FY11 Budget: \$200,000

Milestones: upon signature to 08/31/2015

See FY 2013 for Details

5. State of the Bay Bibliography

CCMP Actions Implemented: HP-1 Restore, create, protect wetlands; HP-5 Acquire and protect quality wetlands; HP-6 Develop economic and tax incentive programs to protect wetlands; RSC-2 Identified Research Need; RSC-4 Increased Funding for GB Research; PPE-1 Establish citizen involvement as an integral part of the program; PPE-3 Develop a long-range adult education and outreach program; PPE-7 Develop and implement a strategy for informing, educating, and providing local government involvement.

SAP Objectives: M&R – Goal 1 Increase Understanding Objs. A – Collaborate with research institutions & B – Support dissemination of monitoring and research; M&R – Goal 2 Make available information to the public, council, and council subcommittees, Objs. A – Obtain analyze and synthesize data of parameters effecting the bay, C – Support applied research and monitoring that is needed by the NRU and PPE.

Lead: Houston Advanced Research Center

FY 11 Budget: \$15,000

Milestones: Upon approval thru 11/30/2011

See FY 2011 Federal Projects for Details

SECTION 8: FY 2011 GRANT BUDGET SPREADSHEET

Grant Roll Up (All Divisions/FYs)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

(a) Grant Title:		FY11 GALVESTON BAY ESTUARY PROGRAM										
(b) USAS Grant #:		900519 (Revision: 0.2)										
(c) FY(s):		2011										
(d) As of Date:		06/01/2011										
(e) Fringe Benefit and Indirect Cost Rates												
FY	Fringe Benefit Rate	Indirect Cost Rate										
2011	25.66%	32.89%										
(f) Grant Roll Up		(g) Expense Items										
(i) Grantor Goal / (m) Start / (n) PE Name	WY	1-Salaries	2-Contracts	3-Travel	4-Other	5-Supplies	6-Equip	7-Cont.	Subtotal	FB	IC	Grand Total
GOAL 2 010102 ADMINISTRATION		385,762.88	0.00	0.00	14,963.94	0.00	0.00	0.00	400,726.82	98,986.76	126,877.42	626,591.00
GOAL 2 010102 MONITORING AND RESEARCH		0.00	0.00	0.00	176,000.00	0.00	0.00	0.00	176,000.00	0.00	0.00	176,000.00
GOAL 2 010102 PUBLIC PART EDUCATION		0.00	139,137.00	0.00	234,271.00	0.00	0.00	0.00	373,409.00	0.00	0.00	373,409.00
GOAL 2 010102 WATER AND SEDIMENT QUALITY		0.00	0.00	0.00	300,000.00	0.00	0.00	0.00	300,000.00	0.00	0.00	300,000.00
GOAL 3 010102 NATURAL RESOURCE USES		0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	100,000.00	0.00	0.00	100,000.00
GOAL 4 010102 MONITORING AND RESEARCH		0.00	0.00	0.00	24,000.00	0.00	0.00	0.00	24,000.00	0.00	0.00	24,000.00
(s) Total Costs		\$385,762.88	\$139,137.00	\$0.00	\$849,235.94	\$0.00	\$0.00	\$0.00	\$1,374,135.82	\$98,986.76	\$126,877.42	\$1,600,000.00
(f) Notes/Comments:												

NOTE: Amounts not rounded